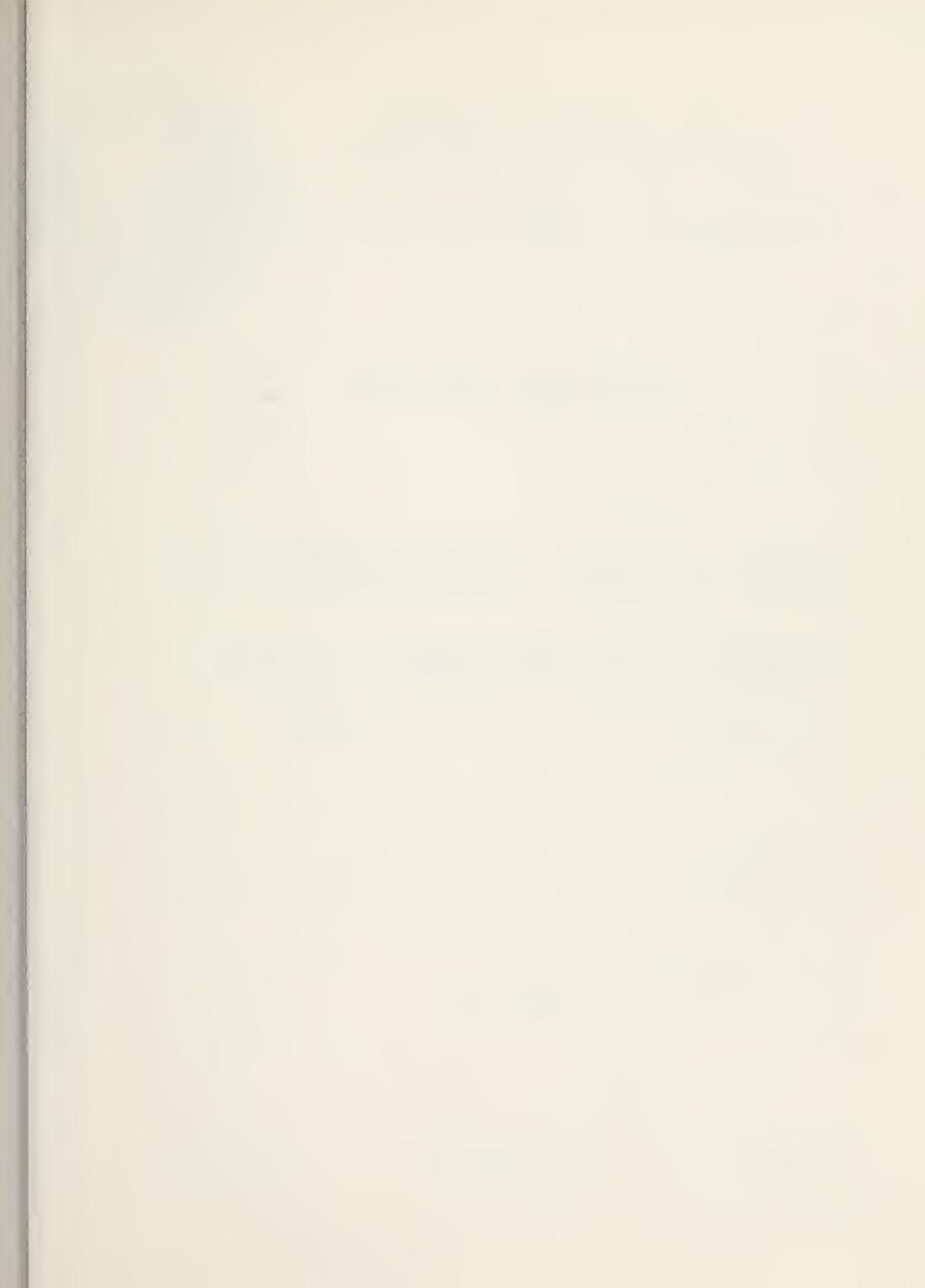


LIBRARY
UNIVERSITY OF CALIFORNIA
DAVIS









State of California
THE RESOURCES AGENCY

Department of Water Resources

F AL
LIBRARY
PY 2

BULLETIN No. 130-64

HYDROLOGIC DATA: 1964

Volume V: SOUTHERN CALIFORNIA

Appendix E: GROUND WATER QUALITY

APRIL 1966



HUGO FISHER
Administrator
The Resources Agency

EDMUND G. BROWN
Governor
State of California

WILLIAM E. WARNE
Director
Department of Water Resources



State of California
THE RESOURCES AGENCY
Department of Water Resources

BULLETIN No. 130-64

HYDROLOGIC DATA: 1964

Volume V: SOUTHERN CALIFORNIA

Appendix E: GROUND WATER QUALITY

APRIL 1966

HUGO FISHER
Administrator
The Resources Agency

EDMUND G. BROWN
Governor
State of California

WILLIAM E. WARNE
Director
Department of Water Resources

LIBRARY
UNIVERSITY OF CALIFORNIA,
DAVIS

ORGANIZATION OF BULLETIN NO. 130 SERIES

Volume I - NORTH COASTAL AREA

Volume II - NORTHEASTERN CALIFORNIA

Volume III - CENTRAL COASTAL AREA

Volume IV - SAN JOAQUIN VALLEY

Volume V - SOUTHERN CALIFORNIA

Each volume consists of the following:

TEXT and

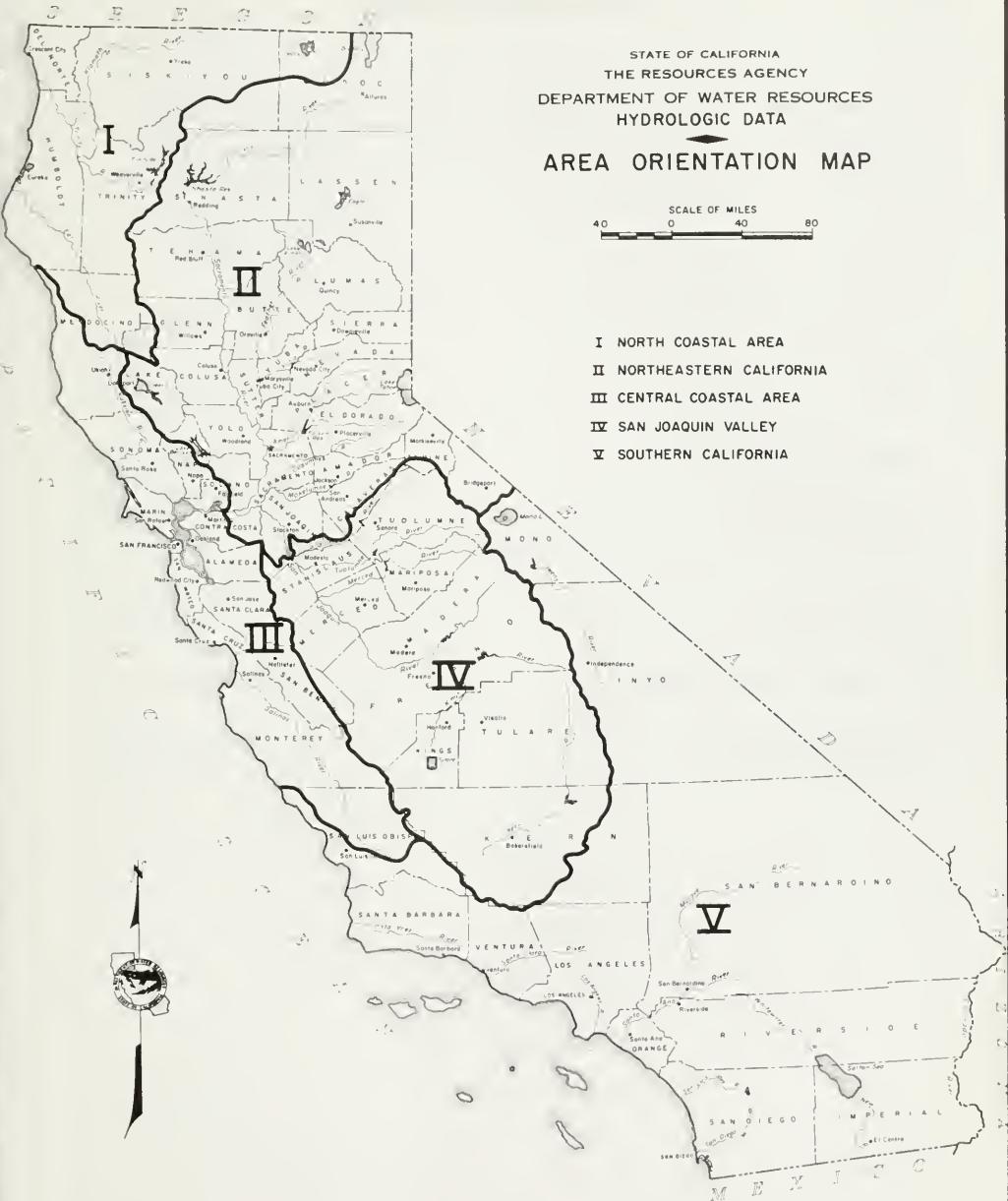
Appendix A - CLIMATE

Appendix B - SURFACE WATER FLOW

Appendix C - GROUND WATER MEASUREMENTS

Appendix D - SURFACE WATER QUALITY

Appendix E - GROUND WATER QUALITY



METRIC CONVERSION TABLE

ENGLISH UNIT	EQUIVALENT METRIC UNIT
Inch (in)	2.54 Centimeters
Foot (ft)	0.3048 Meter
Mile (mi)	1.609 Kilometers
Acre	0.405 Hectare
Square mile (sq. mi.)	2.590 Square kilometer
U. S. gallon (gal)	3.785 Liters
Acre foot (acre-ft)	1,233.5 Cubic meters
U. S. gallon per minute (gpm)	0.0631 Liters per second
Cubic feet per second (cfs)	1.7 Cubic meters per minute

TABLE OF CONTENTS

	<u>Page</u>
ACKNOWLEDGMENTS	vi
INTRODUCTION	1
Surveillance Program Changes, 1963-64	1
Field Procedures	2
Laboratory Procedures	2
Reporting Methods	2
Numbering Systems	3
Areal Designation Code	3
Well Numbering System	5
DATA	7

TABLES

Table No.

E-1 Mineral Analyses of Ground Water:	
...Central Coastal Drainage Province (T)	9
...Los Angeles Drainage Province (U)	74
...Lahontan Drainage Province (W)	279
...Colorado River Basin Drainage Province (X)	314
...Santa Ana Drainage Province (Y)	341
...San Diego Drainage Province (Z)	466
E-2 Radioassays of Ground Water:	
...Los Angeles Drainage Province (U)	526
...Colorado River Basin Drainage Province (X)	529
...Santa Ana Drainage Province (Y)	530

FIGURES

Figure No.

1 Area Orientation Map	iii
2 Location of Drainage Province Boundaries	4

ACKNOWLEDGMENTS

The ground water quality monitoring program was conducted with the assistance of the following agencies:

United States Geological Survey, Southern California Subdistrict Office

Los Angeles County Flood Control District

Orange County Flood Control District

Riverside County Flood Control and Water Conservation District

San Luis Obispo County Flood Control and Water Conservation District

San Bernardino County Flood Control District

Ventura County Flood Control District

Orange County Water District

United Water Conservation District, Ventura County

City of Long Beach Water Department

City of Los Angeles Department of Water and Power

The Department of Water Resources thanks these agencies for their valuable assistance and cooperation.

INTRODUCTION

Appendix E to Volume V of Bulletin No. 130-64 contains data on quality of ground water in Southern California for the 1963-64 water year.

The data presented are measured values of the chemical and radiological characteristics of ground water in Southern California. The Southern California area is shown on Figure 1.

The ground water quality data program consists of selection of a network of wells to be sampled, collection of samples by Department personnel or cooperators, laboratory analyses by the Department or cooperators, examination of the data to note trends or significant changes, and publication of the data and findings. A readily accessible file of analyses data is maintained for use in planning studies and other investigations.

The sampling program is periodically reviewed, and wells that are found to be out of production for any length of time or not able to be sampled for some reason are deleted and replaced with wells selected on the basis of continuity of analyses records, ease of sampling, and availability of construction data and geologic logs.

Surveillance Program Changes, 1963-64

The cooperative sampling program for ground water is maintained at a level of about 1,500 wells to be sampled at least once a year. During the 1963-64 water year, however, only about 800 of these were sampled. This is a decrease over the previous year because budgetary restrictions forced suspension of the Department's sampling of many wells in remote and desert areas.

Cooperating agencies continued to supply analyses for program wells and in addition supplied analyses for many other wells throughout the Southern California area. Department units conducting special investigations also provided analyses for many wells.

All ground water mineral analyses (about 3,600) compiled by the Department of Water Resources from sources in the Southern District during the 1963-64 water year are included here.

Field Procedures

Because of the effect that the method of sampling may have on the analyses obtained, an explanation of the procedures established for sample collection is given below.

Ground water samples are collected in gallon or half-gallon containers. Preferably, they are taken at the nearest possible point to the discharge valve of the pump after it has been pumping for at least five minutes. Observations of color, odor, and taste of samples are made and recorded at the time of collection.

Separate samples are collected when necessary for radioactivity analyses, trace element analyses, or other special determinations.

Laboratory Procedures

The methods of chemical and radiological analyses of ground water used by the Department are the same as those for the analyses of surface water outlined in the text portion of Appendix D.

Reporting Methods

Individual chemical constituents of ground water analyses in Table E-1 are reported as parts per million (ppm). (Machine methods of

data processing are being developed and all of Table E-1 has been machine tabulated. By putting the data on machines, the Department will more efficiently be able to supply the user precisely the data he needs, so far as they are available in the Department.)

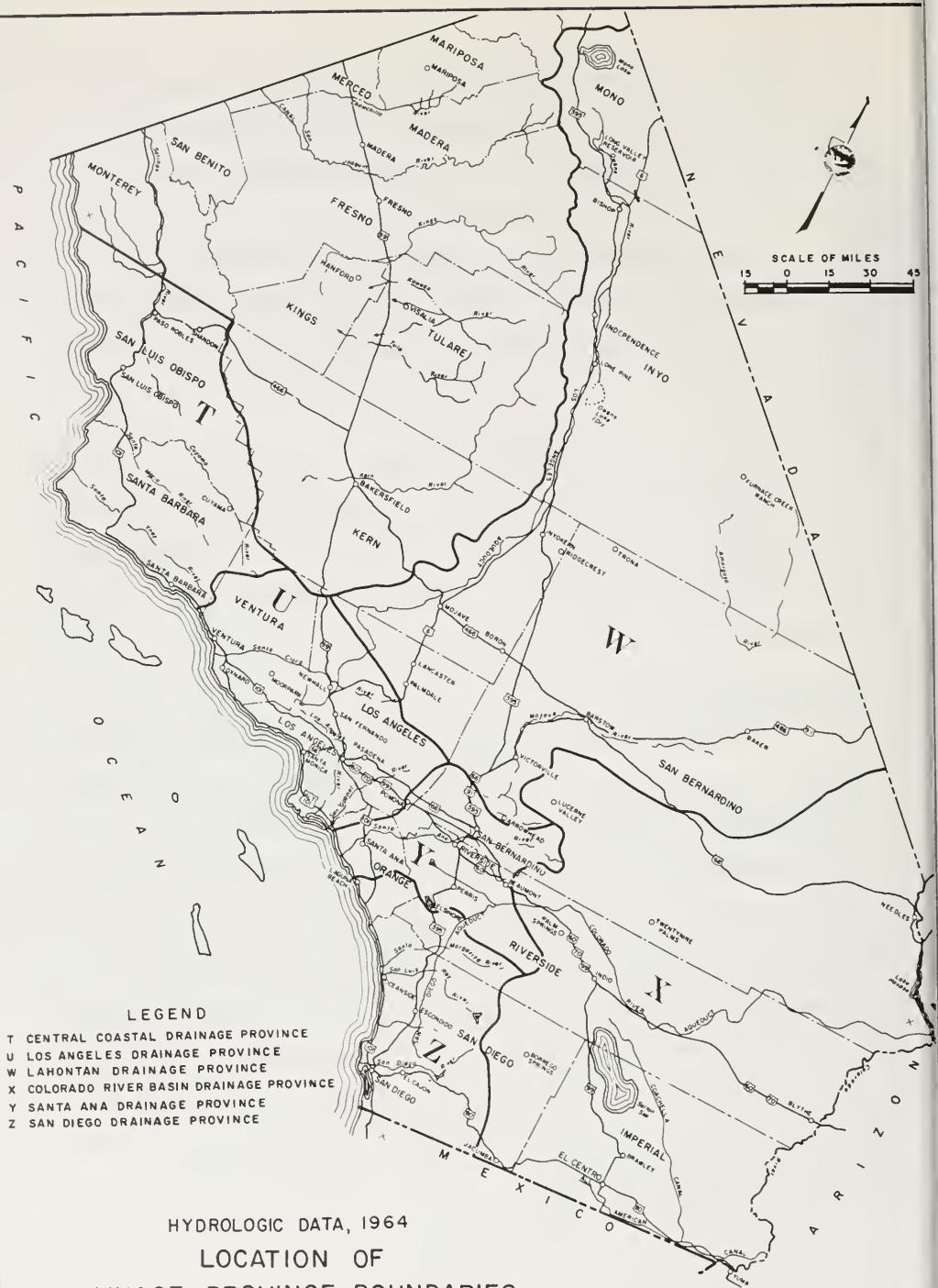
Radiological analyses for ground water are reported in pico-curies per liter (pc/l) in Table E-2. These samples were given either analyses for solid and dissolved alpha-beta activity or gross alpha-beta activity analyses.

Numbering Systems

To facilitate the processing of basic hydrologic data published in this appendix, numerical and letter codes are used to designate hydrologic areas and wells. The coding systems are described in the following paragraphs.

Areal Designation Code

The areal designation coding system used is based on a decimal number, in the form A-11.11, comprising two alphabetical and three numerical characters. The alphabetical character to the left of the dash refers to the drainage province. (The boundaries of these provinces correspond to the regional water quality control board boundaries, with the exception of the Los Angeles-Orange and Los Angeles-San Bernardino county boundaries. These boundaries are shown on Figure 2.) Next are two digits to the left of the decimal; these refer to the hydrologic unit. To the right of the decimal is one alphabetical character which refers to the hydrologic subunit and, next to it, a numerical character representing the hydrologic subarea.



Maps showing these hydrologic areas with their names and areal code numbers are published in the text and Appendixes A and B, Volume V of Bulletin No. 130-64.

Well Numbering System

The state well numbering system used in this report is based on township, range, and section subdivision of the Public Land Survey. It is the system used in all ground water investigations and for numbering all wells for which data are published or filed by the Department of Water Resources. In this report, the number of a well, assigned in accordance with this system, is referred to as the State Well Number.

Under the system each section is divided into sixteen 40-acre tracts lettered as follows:

D	C	B	A
E	F	G	H
M	L	K	J
N	P	Q	R

Note that I and O are omitted in the grid above.

Wells are numbered within each 40-acre tract according to the chronological sequence in which they have been assigned State Well Numbers. For example, a well which has the number 9N/32W-17G1, S, would be in Township 9 North, Range 32 West, Section 17, San Bernardino Base and Meridian, and would be further designated as the first well assigned a

State Well Number in tract G. Well numbers in Southern California are referenced to the Mount Diablo Base and Meridian (M), or the San Bernardino Base and Meridian (S).

An exception to the numbering system based on the Public Land Survey occurs with wells located on land granted when under Spanish or Mexican rule. Succession of title continued after cession of California to the United States. An arbitrary projection of synthetic sections has been imposed on maps of these lands and grants, and these maps are designated as official for numbering of wells in these areas.

Ground water samples obtained from springs are identified by numbers similar to well numbers, except that an "S" is included after the 40-acre tract designation to signify a spring. An example of a number used to identify a sample from a spring is 2N/4W-4MS1, S.

DATA

GROUND WATER QUALITY

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reductance value						Mineral constituents in parts per million parts per millian						
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfur dioxide	Total dissolved solids
Date sampled																Evap. loss
PASO ROBLES HYDRO SUBUNIT																Computed
T09HH																Total
SALINAS HYDRO UNIT																CoCO ₃
T0900																CoCO ₃
24S/11E-25N 1 M 7-14-64	--	7.1	1727	5.3	34	2.80	12.74	0.10	0	325	356	1.80	34	1130	272	
24S/12E-17L 2 M 9-30-64	--	7.5	1328	1.36	6.79	5.43	3.57	0.13	5	303	473	4.06	45	1134	111	
25S/10E-31K 1 M 9- 4-64	--	7.8	1823	8.63	173	153	73	0.15	0	4.97	9.85	0.05	0.28	1050	995	
25S/10E-31N 1 M 9- 4-64	--	7.8	1875	4.1	2.05	0.99	1.2	0.26	0	31	62	6	0	1612	1061	
25S/12E-5R 1 M 9-22-64	6.7	8.0	1200	2.69	6.17	5.87	0.08	0.08	0	439	766	40	0.15	--	1428	
25S/12E- 8G 1 M 7-15-64	--	8.0	916	5.8	2.89	3.95	72	3	0	7.20	15.95	1.13	0	--	1242	
25S/12E- 8R 1 M 7-15-64	--	7.2	1437	9.4	4.69	5.59	129	3	0	364	521	115	3	0.75	152	
25S/12E- 8R 2 M 9-17-64	6.7	8.0	1340	7.2	3.59	5.51	13	1	0	5.97	10.85	3.24	0.05	--	1272	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per millilitre percent reaction value				Mineral constituents in parts per million parts per million				
				Magnesium	Sodium	Calcium	Chloride	Sulfate	Fluoride	Boron	Silica	TDS
Date sampled				PASO ROBLES HYDRO SUBUNIT				T0940				CaCO ₃ Computed
25S/12E-15F 1 M 9-22-64	68	8.1	650	32	36	4.7	0.05	0	251	52	16	0.40
				1.60	2.04	2.04	0.11	0.71	1.47	0.26	0.4	—
				24	45	31	63	11	22	4	—	3.94
25S/12E-16D 1 M 9-16-64	--	8.1	700	37	34	59	0.05	0	251	67	0.2	4.50
				1.85	2.80	2.57	0.11	0.11	1.39	60	7	—
				25	39	35	56	1	23	2	—	3.43
25S/12E-16L 1 M 7-14-64	--	7.5	3003	250	129	315	5	0	580	828	10	0.7
				12.48	10.61	13.70	0.13	9.51	17.24	10.24	0.16	—
				34	29	37	26	26	4.6	28	—	4.14
25S/12E-16L 2 M 7-14-64	--	6.8	2770	238	112	320	4	0	560	909	24.3	1.00
				11.88	9.21	13.91	0.10	9.18	18.93	6.85	0.02	4.2
				34	26	40	26	26	54	20	—	2380
9-17-64	--	7.7	2600	151	140	350	3	0	477	940	26.8	0
				7.53	11.01	15.22	0.08	7.82	19.57	7.56	0	—
				22	34	44	22	22	56	22	—	2229
25S/12E-16N 1 M 9-30-64	--	8.0	675	52	14	68	2	0	291	51	13	0.50
				2.59	1.15	2.96	0.05	4.77	1.06	1.69	0.21	—
				38	17	44	1	62	14	22	3	—
25S/12E-27D 1 M 9-24-64	72	8.4	665	24	93	2	5	283	58	40	0.2	0.42
				1.20	1.97	4.04	0.05	0.17	4.64	1.21	1.13	—
				17	27	56	1	63	17	15	2	—
25S/12E-27F 1 M 9-24-64	70	8.2	700	34	33	76	2	0	293	64	8	0.12
				1.70	2.71	3.30	0.05	4.80	1.33	1.27	0.13	—
				22	35	43	1	64	18	17	2	—

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (macro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfur	Total dissolved solids (TDS) in mg/l	Total hardness as CaCO ₃
Date sampled				C _o	Mg	Na	K	HCO ₃	CO ₂	SO ₄	Cl	N _o	F	B	S _o O ₂	CaCO ₃	
PASO ROBLES HYDRO SUBUNIT																	
25S/12E-28B 1 M	--	7.6	1958	11.2	9.7	19.6	5	0	4.40	4.34	214	0.7	0.84	4.7	1404	679	
7-15-64				5.25	7.98	8.52	0.13	38	7.21	9.04	6.03	0.21				1336	
25S/12E-35A 1 M	--	7.5	2532	13.3	10.6	32.3	5	0	5.24	6.00	301	5	0.8	1.24	33	1820	
7-14-64				6.64	8.72	14.04	0.13	48	8.59	12.49	8.49	0.08				1766	
26S/ 9E-15NS1 M	--	8.0	340	4.8	9	6	1	0	184	11	0	0.1	0.08	--	--	157	
9- 7-64				2.40	0.74	0.26	0.03	8	3.02	0.23	0.31						
26S/12E-16C 1 M	--	7.5	1170	9.7	4.3	10.2	2	0	4.57	1.03	114	0.5	0.30	38	752	419	
7-15-64				4.84	3.54	4.43	0.05	34	7.49	2.14	3.21	0.18					
26S/12E-16C 2 M	--	7.6	1773	4.6	1.5	3.68	4	0	5.50	2.30	189	1	3.0	1.90	39	1170	
7-15-64				2.30	1.23	16.00	0.10	82	9.01	4.79	5.33	0.02				1167	
26S/12E-16F 1 M	--	7.4	1011	9.8	34	61	2	0	2.65	82	119	6.7	0.3	0.21	43	682	
7-15-64				4.89	2.80	2.65	0.05	27	4.34	1.71	3.36	1.08				385	
26S/12E-21D 1 M	--	6.6	918	3.6	31	11.7	3	0	1.97	1.36	123	2	0.5	0.56	27	580	
7-15-64				1.80	2.55	5.09	0.08	27	3.23	2.83	3.47	0.03				573	
26S/12E-21L 1 M	70	7.4	1850	85	27	33.0	6	0	5.74	1.68	270	3	0.6	0.85	--	1121	
8- 3-64				4.24	2.22	14.35	0.15	11	9.41	3.50	7.61	0.05				323	
								68		4.6	17					1173	
SALINAS HYDRO UNIT																	
TO900																	
25S/12E-28B 1 M	--	7.6	1958	11.2	9.7	19.6	5	0	4.40	4.34	214	0.7	0.84	4.7	1404	679	
7-15-64				5.25	7.98	8.52	0.13	38	7.21	9.04	6.03	0.21				1336	
25S/12E-35A 1 M	--	7.5	2532	13.3	10.6	32.3	5	0	5.24	6.00	301	5	0.8	1.24	33	1820	
7-14-64				6.64	8.72	14.04	0.13	48	8.59	12.49	8.49	0.08				1766	
26S/ 9E-15NS1 M	--	8.0	340	4.8	9	6	1	0	184	11	0	0.1	0.08	--	--	157	
9- 7-64				2.40	0.74	0.26	0.03	8	3.02	0.23	0.31						
26S/12E-16C 1 M	--	7.5	1170	9.7	4.3	10.2	2	0	4.57	1.03	114	0.5	0.30	38	752	419	
7-15-64				4.84	3.54	4.43	0.05	34	7.49	2.14	3.21	0.18				736	
26S/12E-16C 2 M	--	7.6	1773	4.6	1.5	3.68	4	0	5.50	2.30	189	1	3.0	1.90	39	1170	
7-15-64				2.30	1.23	16.00	0.10	82	9.01	4.79	5.33	0.02				1167	
26S/12E-16F 1 M	--	7.4	1011	9.8	34	61	2	0	2.65	82	119	6.7	0.3	0.21	43	682	
7-15-64				4.89	2.80	2.65	0.05	27	4.34	1.71	3.36	1.08				385	
26S/12E-21D 1 M	--	6.6	918	3.6	31	11.7	3	0	1.97	1.36	123	2	0.5	0.56	27	580	
7-15-64				1.80	2.55	5.09	0.08	27	3.23	2.83	3.47	0.03				573	
26S/12E-21L 1 M	70	7.4	1850	85	27	33.0	6	0	5.74	1.68	270	3	0.6	0.85	--	1121	
8- 3-64				4.24	2.22	14.35	0.15	11	9.41	3.50	7.61	0.05				323	
								68		4.6	17					1173	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents				parts per million equivalents per million percent reactivity				Mineral constituents in parts per million					
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Silicate	Total hardness	Evap 60°C	Evap 105°C
Date sampled				Na	Mg	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	SO ₂		
PASO ROBLES HYDRO SUBUNIT																	
26S/12E-33B 2 M 8-3-64	65	8.0	1750	174	54	167	4	0	462	360	184	0	0.1	0.55	--	1288	657
27S/12E-4P 2 M 7-16-64	--	7.9	1140	54	8.68	4.44	7.26	0.10	7.57	7.50	5.19	37	0.1	0.38	--	1171	
27S/12E-4P 2 M 7-16-64	--	7.9	1140	54	69	109	2	0	429	216	60	0	0.1	0.38	--	762	418
27S/12E-9F 1 M 7-16-64	64	7.6	880	59	70	37	1	0	7.03	4.50	1.69	53	34	13		721	
27S/12E-9F 1 M 7-16-64	64	7.6	880	59	70	37	1	0	324	169	57	0	0.2	0.16	--	644	435
27S/12E-21B 1 M 7-16-64	62	7.8	870	74	56	38	1	0	5.31	3.52	1.61	51	34	15		553	
27S/12E-21B 1 M 7-16-64	62	7.8	870	74	56	38	1	0	350	151	43	0	0.1	0.12	--	594	415
27S/12E-21G 1 M 7-16-64	--	7.5	1410	123	67	97	2	0	456	209	119	32	0.1	0.26	--	974	583
27S/12E-21G 1 M 7-16-64	--	7.5	1410	6.14	5.51	4.22	0.05	7.47	4.35	3.36	0.52	3	21			874	
27S/12E-21N 1 M 7-16-64	62	7.9	1090	111	66	49	1	0	340	288	55	1	0.1	0.14	--	800	549
27S/12E-21N 1 M 7-16-64	62	7.9	1090	5.54	5.43	2.13	0.03	5.57	6.00	1.55	0.02	42	46	12		738	
27S/12E-29P 3 M 7-17-64	62	7.6	1060	122	42	45	1	0	326	227	55	3	0.1	0.14	--	760	477
27S/12E-29P 3 M 7-17-64	62	7.6	1060	6.09	3.45	1.96	0.03	5.34	4.73	1.55	0.05	46	41	13		655	
27S/12E-32F 2 M 7-15-64	64	7.7	960	81	64	41	2	0	309	221	59	0	0.1	0.10	--	676	465
27S/12E-32F 2 M 7-15-64	64	7.7	960	4.04	4.7	1.78	0.05	5.06	4.60	1.66	0.15	45	41			620	
SALINAS HYDRO UNIT																	
T09HO																	
26S/12E-33B 2 M 8-3-64	65	8.0	1750	174	54	167	4	0	462	360	184	0	0.1	0.55	--	1288	657
27S/12E-4P 2 M 7-16-64	--	7.9	1140	54	69	109	2	0	429	216	60	0	0.1	0.38	--	1171	
27S/12E-4P 2 M 7-16-64	--	7.9	1140	2.69	5.67	4.74	0.05	7.03	4.50	1.69	53	34	13		721		
27S/12E-9F 1 M 7-16-64	64	7.6	880	59	70	37	1	0	324	169	57	0	0.2	0.16	--	644	435
27S/12E-9F 1 M 7-16-64	64	7.6	880	2.94	5.76	1.61	0.03	5.31	3.52	1.61	51	34	15		553		
27S/12E-21B 1 M 7-16-64	62	7.8	870	74	56	38	1	0	350	151	43	0	0.1	0.12	--	594	415
27S/12E-21B 1 M 7-16-64	62	7.8	870	3.69	4.61	1.65	0.03	5.74	3.14	1.21	57	31	12		535		
27S/12E-21G 1 M 7-16-64	--	7.5	1410	123	67	97	2	0	456	209	119	32	0.1	0.26	--	974	583
27S/12E-21G 1 M 7-16-64	--	7.5	1410	6.14	5.51	4.22	0.05	7.47	4.35	3.36	0.52	3	21			874	
27S/12E-21N 1 M 7-16-64	62	7.9	1090	111	66	49	1	0	340	288	55	1	0.1	0.14	--	800	549
27S/12E-21N 1 M 7-16-64	62	7.9	1090	5.54	5.43	2.13	0.03	5.57	6.00	1.55	0.02	42	46	12		738	
27S/12E-29P 3 M 7-17-64	62	7.6	1060	122	42	45	1	0	326	227	55	3	0.1	0.14	--	760	477
27S/12E-29P 3 M 7-17-64	62	7.6	1060	6.09	3.45	1.96	0.03	5.34	4.73	1.55	0.05	46	41	13		655	
27S/12E-32F 2 M 7-15-64	64	7.7	960	81	64	41	2	0	309	221	59	0	0.1	0.10	--	676	465
27S/12E-32F 2 M 7-15-64	64	7.7	960	4.04	4.7	1.78	0.05	5.06	4.60	1.66	0.15	45	41			620	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				Mineral constituents in				
				Calcium C. _o	Magnesium M. _g	Sodium N. _o	Potassium K.	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl.	Nitrate NO ₃
Date sampled												
PASO ROBLES HYDRO SUBUNIT												
28S/12E-4G 1 M 7-16-64	6.2	7.3	800	78 3.89 4.3	45 3.70 4.1	33 1.43 16	0 0.03	0	293 4.80 53	158 3.29 36	0	0.1 0.07
28S/12E-10H 3 M 7-15-64	6.8	8.2	840	32 1.60 1.17	74 6.09 1.17	39 1.70 18	1 0.03	0	342 5.61 58	114 2.29 24	7 0.1 17	0.07 0.11 1
28S/12E-14R 1 M 7-15-64	6.8	7.8	890	77 3.84 3.38	55 4.52 4.5	39 1.70 17	2 0.05	0	337 5.52 55	125 2.60 1.55	20 0.1 16	0.05 0.32 3
28S/12E-24F 2 M 7-15-64	6.5	8.1	580	50 2.50	32 2.63	29 1.26	1 0.03	0	227 3.72 59	78 1.62 26	32 4 14	0.08 0.06 1
28S/13E-30N 1 M 7-15-64	6.5	7.7	650	48 2.40	38 3.13	35 1.52	2 0.05	0	252 4.13 59	86 1.79 59	32 0.90 13	0.07 0.16 2
29S/13E-5D 5 M 7-14-64	--	8.2	930	38 1.90	84 6.91	45 1.96	0 1.00	0	294 4.82 45	189 3.93 37	61 1.72 16	0.1 0.19 2
29S/13E-8N 1 M 7-14-64	6.5	8.4	730	27 1.35	63 5.18	40 1.74	1 0.03	13 0.43	293 4.88 5	55 1.15 58	67 1.89 14	0.03 0.05 23
29S/13E-19H 2 M 7-14-64	6.4	7.9	550	35 1.75	36 2.96	29 1.26	0 0.00	0	244 4.00 68	59 1.23 21	5 0.59 10	0.09 0.08 1
T09HO												
SALINAS HYDRO UNIT												
T0900												
28S/12E-4G 1 M 7-16-64	6.2	7.3	800	78 3.89 4.3	45 3.70 4.1	33 1.43 16	0 0.03	0	293 4.80 53	158 3.29 36	0 0.1 11	0.07 0.02 1
28S/12E-10H 3 M 7-15-64	6.8	8.2	840	32 1.60 1.17	74 6.09 1.17	39 1.70 18	1 0.03	0	342 5.61 58	114 2.29 24	7 0.1 17	0.07 0.11 1
28S/12E-14R 1 M 7-15-64	6.8	7.8	890	77 3.84 3.38	55 4.52 4.5	39 1.70 17	2 0.05	0	337 5.52 55	125 2.60 1.55	20 0.1 16	0.05 0.32 3
28S/12E-24F 2 M 7-15-64	6.5	8.1	580	50 2.50	32 2.63	29 1.26	1 0.03	0	227 3.72 59	78 1.62 26	32 4 14	0.08 0.06 1
28S/13E-30N 1 M 7-15-64	6.5	7.7	650	48 2.40	38 3.13	35 1.52	2 0.05	0	252 4.13 59	86 1.79 59	32 0.90 13	0.07 0.16 2
29S/13E-5D 5 M 7-14-64	--	8.2	930	38 1.90	84 6.91	45 1.96	0 1.00	0	294 4.82 45	189 3.93 37	61 1.72 16	0.1 0.19 2
29S/13E-8N 1 M 7-14-64	6.5	8.4	730	27 1.35	63 5.18	40 1.74	1 0.03	13 0.43	293 4.88 5	55 1.15 58	67 1.89 14	0.03 0.05 23
29S/13E-19H 2 M 7-14-64	6.4	7.9	550	35 1.75	36 2.96	29 1.26	0 0.00	0	244 4.00 68	59 1.23 21	5 0.59 10	0.09 0.08 1

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reactivity value				Mineral constituents in parts per million						
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica			
Date sampled	Ca	Mg	K	Na	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	Evap 60°C	Evap 105°C	Calculated CaCO ₃			
CAMBRIA HYDRO SUBUNIT																		
ARROYO DE LA CRUZ HYDRO SUBAREA																		
T10AO																		
25S/ 6E-35Q 1 M 7-23-64	6.8	8.0	500	1.85	2.47	0.87	0.03	20	1	0	246	26	0	0.1	0.12	--	270	216
SAN SIMEON HYDRO SUBAREA																		
26S/ 6E-11H 1 M 7- 8-64	--	7.5	1380	1.90	4.28	7.91	0.03	52	182	0	116	46	3	0.1	0.08	--	978	309
26S/ 7E-26C 1 M 7- 8-64	--	7.8	880	2.89	4.61	1.87	0.05	56	43	0	374	25	0	0.1	0.10	--	771	375
27S/ 8E- 6H 2 M 7- 8-64	--	8.2	570	1.90	3.54	4.3	0.03	38	19	1	298	40	0	0.1	0.10	--	457	272
CAYUCOS HYDRO SUBAREA																		
28S/10E-33E 1 M 7-14-64	--	8.4	1079	4.1	7.1	104	1	29	466	35	98	23	0.4	0.30	--	636	395	
28S/10E-33E 3 M 7-14-64	--	7.1	3607	2.05	5.84	4.52	0.03	56	0.97	8	61	76	3	0.37	0.31	--	632	2294
SAN LUIS OBISPO HYDRO UNIT																		
T10A2																		
26S/ 6E-35Q 1 M 7-23-64	6.8	8.0	500	1.85	2.47	0.87	0.03	37	1	0	4.03	26	0	0.1	0.12	--	258	
SAN LUIS OBISPO HYDRO UNIT																		
26S/ 6E-35Q 1 M 7-23-64	6.8	8.0	500	1.85	2.47	0.87	0.03	37	1	0	4.03	26	0	0.1	0.12	--	258	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million						
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfur	TDS
Date sampled	Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	S	Ca	Na	CaCO ₃	
CAMBRIA HYDRO SUBUNIT																
28S/10E-33E11 M 7-14-64	--	8.6	1600	53	64	207	1	30	433	35	268	28	0.6	0.27	--	964
28S/10E-33E12 M 7-14-64	--	8.1	1700	2.64	5.26	9.00	0.03	1.00	7.10	0.73	7.56	0.45	0.27	--	900	
28S/10E-33K 2 M 1-21-64	--	7.8	1230	46	78	235	1	0	523	48	318	1.7	0.6	0.27	--	1060
28S/10E-33L 1 M 7-14-64	--	8.1	1120	2.30	6.41	10.22	0.03	8.57	1.00	8.97	0.27	1	0.27	--	1001	
CAYUCOS HYDRO SUBAREA																
T10A0				T10A6												
28S/10E-33E11 M 7-14-64	--	8.6	1600	2.64	5.26	9.00	0.03	1.00	7.10	0.73	7.56	0.45	0.27	--	964	
28S/10E-33E12 M 7-14-64	--	8.1	1700	46	78	235	1	0	523	48	318	1.7	0.6	0.27	--	900
28S/10E-33K 2 M 1-21-64	--	7.8	1230	3.14	71	100	1	0	520	36	125	29	0.2	0.33	18	1060
28S/10E-33L 1 M 7-14-64	--	8.1	1120	2.4	4.84	4.35	0.03	8.52	0.75	3.03	0.47	4	0.47	--	1001	
SAN LUIS OBISPO HYDRO UNIT																
T10A0				T10A6												
28S/10E-33E11 M 7-14-64	--	8.6	1600	2.64	5.26	9.00	0.03	1.00	7.10	0.73	7.56	0.45	0.27	--	964	
28S/10E-33E12 M 7-14-64	--	8.1	1700	46	78	235	1	0	523	48	318	1.7	0.6	0.27	--	900
28S/10E-33K 2 M 1-21-64	--	7.8	1230	3.14	71	100	1	0	520	36	125	29	0.2	0.33	18	1060
28S/10E-33L 1 M 7-14-64	--	8.1	1120	2.4	4.84	4.35	0.03	8.52	0.75	3.03	0.47	4	0.47	--	1001	
OLD HYDRO SUBAREA																
29S/10E-3C 1 M 8-13-64	--	8.2	645	1.60	4.19	1.70	0.03	0	312	58	37	0	0.04	0.18	--	406
29S/10E-3C 2 M 8-13-64	--	8.2	650	1.70	3.87	1.70	0.03	5.11	1.21	1.04	1.10	14	0.02	0.15	--	372
29S/10E-3G 1 M 7- 9-64	--	8.1	920	5.50	6.8	52	1	0	310	58	39	0	0.02	0.15	--	424
				2.50	5.59	2.26	0.03	6.39	1.64	2.20	0	0.02	0.15	--	371	
						54	22		62	16	22					520

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents				parts per million equivalents per million percent reactivity				Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfur dioxide	TDS	Total hardness		
Date sampled	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B							Evap 10°C	Evap 10°C Computed	CaCO ₃
CAMBRIA HYDRO SUBUNIT OLD HYDRO SUBAREA																			
29S/10E-3GS1 M 7-9-64	--	8.2	700	1.25 1.18	4.6 3.78	2.00 54	0.03 28	0	227 3.72	14 0.29	10.4 2.93	7 0.11	0.1 0.42	--	4.44	252			
29S/10E-3GS2 M 12-4-63	7.9	690	1.10	2.2 1.15	51 57	4.19 2.09	0	0	232 3.80	24 0.50	10.6 2.99	0.1 0.07	0.1 1	51	355				
29S/10E-11H 1 M 7-9-64	--	8.2	1070	2.50 2.1	50 62	7.40 1.7	2.00 1.7	0.03 1.7	0	4.40 7.21	6.8 1.42	11.6 3.27	2 0.03	0.1 0.12	--	4.21	265		
SAN LUIS OBISPO HYDRO UNIT T10AO																			
T10AQ																			
29S/10E-3GS1 M 7-9-64	--	8.2	700	1.25 1.18	4.6 3.78	2.00 54	0.03 28	0	227 3.72	14 0.29	10.4 2.93	7 0.11	0.1 0.42	--	4.44	252			
29S/10E-3GS2 M 12-4-63	7.9	690	1.10	2.2 1.15	51 57	4.19 2.09	0	0	232 3.80	24 0.50	10.6 2.99	0.1 0.07	0.1 1	51	355				
29S/10E-11H 1 M 7-9-64	--	8.2	1070	2.50 2.1	50 62	7.40 1.7	2.00 1.7	0.03 1.7	0	4.40 7.21	6.8 1.42	11.6 3.27	2 0.03	0.1 0.12	--	4.21	265		
T10AT																			
29S/10E-3GS1 M 7-9-64	--	8.2	700	1.25 1.18	4.6 3.78	2.00 54	0.03 28	0	227 3.72	14 0.29	10.4 2.93	7 0.11	0.1 0.42	--	4.44	252			
29S/10E-3GS2 M 12-4-63	7.9	690	1.10	2.2 1.15	51 57	4.19 2.09	0	0	232 3.80	24 0.50	10.6 2.99	0.1 0.07	0.1 1	51	355				
29S/10E-11H 1 M 7-9-64	--	8.2	1070	2.50 2.1	50 62	7.40 1.7	2.00 1.7	0.03 1.7	0	4.40 7.21	6.8 1.42	11.6 3.27	2 0.03	0.1 0.12	--	4.21	265		
SAN LUIS OBISPO HYDRO UNIT T10000																			
TABLE E-1																			

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reacione value				Mineral constituents in parts per million			
				Calcium	Magnesium	Sodium	Potassium	Bicarbonate	Sulfate	Chloride	Nitrate
Date sampled				CO ₃	Na	K	CO ₃	HCO ₃	SO ₄	F	SiO ₂
SAN LUIS OBISPO HYDRO SUBUNIT T10B1											
29S/10E-24N 1 M 10-15-63	68	8.0	2850	11.13	223	24	540	0.03	0	997	305
				30	1.97	23.48	0.1	45	16.34	468	24
					5	64			13.20	0.39	0.1
									18	1	
									36		
3-22-64	64	7.5	3000	5.19	104	105	535	0.08	0	1007	295
				14	8.64	23.26	3	45	16.50	479	23
					23	63			6.14	13.51	0.1
									17	37	
										1	
29S/10E-25D 3 M 10-15-63	63	7.8	1600	1.47	84	103	0	0	509	117	17
				7.34	6.91	4.48	0.05		8.34	2.44	0.27
				39	37	24			44	13	
									13	41	
										1	
29S/10E-25F 1 M 7- 6-64	--	8.3	1200	62	98	59	1	6	550	92	0
				3.09	8.06	2.57	0.03	0.20	9.01	1.92	0.1
				22	59	19		1	14	20	
29S/10E-25F 4 M 7- 9-64	--	8.3	1000	78	67	50	2	3	476	70	0
				3.89	5.51	2.17	0.05	0.10	7.80	1.46	0.1
				33	47	19		1	67	13	
										19	
29S/11E-31D 1 M 3-25-64	64	8.0	1000	32	20	183	1	0	207	68	105
				1.60	1.64	7.96	0.03		3.39	1.42	4.65
				14	15	71			30	13	15
CHORRO HYDRO SUBAREA											
29S/11E-19F 1 M 7-14-64	--	7.5	900	4.7	64	67	1	0	492	54	1
				2.35	5.26	2.91	0.03		8.06	1.12	0.02
				22	50	28			76	11	13

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity						Mineral constituents in parts per million										
				Calcium C o	Magnesium M g	Sodium N a	Potassium K	Carbon O 3	Bicarbonate H C O 3	Sulfate S O 4	Chloride C l	Nitrate N O 3	Fluoride F	Boron B	Silicate S i O 2	Total hardness Evap 80°C Evap 105°C Calculated C a C O 3				
SAN LUIS OBISPO HYDRO SUBUNIT																				
CHORRO HYDRO SUBAREA				T10B0						T10B2						T1000				
295/11E-25D 1 M 7-14-64	--	7.6	1330	3.84	6.00	5.00	0.05	2	0	4.55	9.7	1.95	2	0.1	0.15	--	852	492		
295/11E-25D 2 M 7-14-64	--	8.0	1875	7.14	14.3	7.7	1.40	2	0	7.46	2.02	5.50	0.03	0.1	0.15	--	785			
295/11E-30D 1 M 7-14-64	--	8.0	1170	3.14	6.33	6.09	0.05	34	31	5.0	13	3.79	7	0.1	0.15	--	1262	674		
295/11E-32F 2 M 7-14-64	69	8.4	1270	5.69	6.66	2.22	0.03	32	31	31	14	2.79	10.69	0.11	1	1068				
295/11E-32M 1 M 7-14-64	69	8.3	2050	7.98	7.81	7.91	0.10	46	46	46	31	4.76	6.1	1.27	1.7	0.01	--	742	519	
LOS OSOS HYDRO SUBAREA																				
30S/10E-13A 1 M 7-8-64	--	7.5	370	1.05	(1.90	1.87	0.03	21	49	0.77	21	4	7.9	4.1	0.1	0.02	--	266	98	
30S/10E-13A 2 M 7-8-64	--	7.2	420	1.15	0.99	2.22	0.03	23	51	1	0	4.6	1.9	9.8	2.1	0.05	--	223		
												0.75	0.40	2.76	0.34			272	107	
												1	18	6.5	8			248		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity				Mineral constituents in parts per million parts per million											
				Calcium C o	Magnesium M g	Sodium N a	Potassium K	Carbonate C O ₃	Bicarbonate H C O ₃	Sulfate S O ₄	Chloride C l	Nitrate N O ₃	Fluoride F	Boron B	Silica S i O ₂	TDS Total dissolved solids	Total hardness	Evap. loss	Evap. loss
SAN LUIS OBISPO HYDRO SUBUNIT LOS OSOS HYDRO SUBAREA																			
30S/10E-13A 6 M	--	7.8	300	1.0	9	41	1	0	50	5	46	42	0.1	0.02	--	202	62		
7- 3-64				0.50	0.74	1.78	0.03	0.82	0.10	1.30	0.68								
30S/10E-13B 2 M	--	7.7	180	1.8	1	22	1	0	59	2	27	5	0.1	0.02	--	179			
7- 8-64				0.90	0.08	0.96	0.03	0.97	0.04	0.76	0.08								
30S/10E-23H 1 M	69	7.0	180	1.0	2	22	3	0	33	2	41	7	0.1	0.02	--	118	49		
7- 8-64				0.50	0.16	0.96	0.08	0.54	0.04	1.16	0.11								
30S/10E-27R 1 M	--	7.2	1550	92	65	138	3	0	375	59	313	6.3	0.1	0.17	24	918	497		
1-29-64				4.59	5.35	6.00	0.08	6.15	1.23	8.83	0.10								
30S/11E-7G 1 M	--	7.3	190	11	7	20	1	0	37	5	34	17	0.1	0.02	--	103			
7- 8-64				0.55	0.58	0.87	0.03	0.61	0.10	0.96	0.27								
30S/11E-7G 3 M	--	7.9	180	1.2	5	20	1	0	43	4	28	13	0.1	0.02	--	113			
7- 8-64				0.60	0.41	0.87	0.03	0.70	0.08	0.79	0.21								
30S/11E-7N 1 M	--	7.4	276	12	10	22	1	0	83	0	35	3.0	0.2	0.02	34	150	71		
10- 7-63				0.60	0.82	0.96	0.03	1.36	0.05	0.99	0.41								
				25	34	40	1	57		41									

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent transmittance value						Mineral constituents in parts per million									
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	TDS	Total hardness os. Computed		
Date sampled				Mg	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	F	B	SiO ₂					
SAN LUIS OBISPO HYDRO SUBUNIT SAN LUIS OBISPO CR HYDRO SUBAREA T1000																			
31S/12E-28N 1 M	8-11-64	--	7.7	745	1.50	0.49	6	156	0.10	0	303	1.02	56	0.2	0.41	--	498		
					1.17	6	76	6.78	0.08	4.97	2.12	1.58	0.06				508		
31S/12E-29F 1 M	1-22-64	--	8.2	780	2.94	4.19	79	51	30	3	0	434	86	28	0	0.08	22	541	
					4.1	4.4	1.30	0.08	1.30	1	7.11	1.79	0.79				513		
31S/12E-29L 1 M	1-22-64	--	7.5	775	3.39	4.28	68	52	41	3	0	448	68	35	0.5	0.12	30	536	
					3.39	4.28	1.78	0.08	1.78	1	7.34	1.42	0.99	0.01			384		
31S/12E-29P 1 M	1-22-64	--	7.5	910	4.29	4.44	86	54	59	2	0	495	106	39	0.9	0.2	25	518	
					3.8	3.9	2.57	0.05	2.57	1	8.11	2.21	1.10	0.01			437		
31S/12E-29P 2 M	1-22-64	--	7.3	1200	4.59	5.18	92	63	95	5	0	309	296	110	0.9	0.1	35	606	
					3.3	3.7	4.13	0.13	4.13	1	5.06	6.16	3.10	0.01			437		
31S/12E-32D 4 M	8-13-64	--	8.5	790	4.2	3.3	99	16	8	438	36	4.1	0	0.6	0.26	--	616		
					2.10	2.71	4.30	0.41	4.30	3	0.27	7.18	0.75	1.16			616		
31S/12E-32K 1 M	7-8-64	--	8.4	1310	3.29	5.43	66	66	145	3	77	8	12	500	104	5	0.2	0.41	489
					2.2	3.6	2.8	4.5	2.8	1	0.40	8.20	2.17	3.98	0.08			491	
												55	15	27	1			826	
																		436	
																		788	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million								
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfur dioxide	T.D.S.	Total Evap 80°C hardness	
Date sampled				Mg	Na	K	HCO ₃	CO ₂	SO ₄	Cl	NO ₃	F	B	S O ₂		Evap 105°C hardness	Calculated CaCO ₃	
SAN LUIS OBISPO HYDRO SUBUNIT																		
PISSMO HYDRO SUBAREA																		
31S/12E-34P 1 M	--	7.9	571	1.95	1.56	2.00	0.05	2	0	128	65	75	0.0	0.4	0.11	27	353	176
11- 4-63				35	28	36	1	38	24	20	1.35	2.12					336	
32S/12E-12R 1 M	64	7.8	2050	1.68	21	390	22	0	1185	70	219	3.6	0.2	1.12	38	1440	506	
10-16-63				8.38	1.73	16.96	0.56	19.42	1.46	6.18	0.06					1516		
				30	6	61	2	72	5	23						2152	1023	
67	8.4	2700	1.26	290	12	13	531	6.77	355	0	0.4	1.00						
7- 8-64				10.08	10.36	12.61	0.31	0.43	8.70	14.10	10.01					1937		
32S/12E-12R 2 M	64	8.1	1875	1.45	4.1	298	18	0	1198	4	149	6.4	0.2	1.52	4.8	1270	531	
10-16-63				7.24	3.37	12.96	0.46	19.64	0.08	4.20	0.10					1300		
				30	14	54	2	82		17						2358	1015	
32S/12E-13J 3 M	--	7.2	3000	2.30	1.07	385	6	0	200	536	766	32	1.6	0.28	--			
7- 8-64				11.48	8.80	16.74	0.15	4.5	3.28	11.16	21.60	0.52				2162		
				31	24				9	31	59	1				1156	180	
32S/12E-13P 1 M	--	8.2	1930	1.45	2.14	395	26	0	400	169	326	73	0.1	0.38	--		1221	
7- 8-64				77	10	82	1	32	17		45	6						

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity						Mineral constituents in parts per million parts per million							
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fu. F	Boron B	Sulfate SO ₄	TDS Evap (80°C) Evap (55°C) Computed CaCO ₃	
ARROYO GRANDE HYDRO SUBUNIT T10C0																	
12N/35W-30M 1 S 6-19-64	61	7.8	1775	89	178	3	0	563	487	109	0	0.2	0.17	--	1334	955	
12N/35W-31H 1 S 6-19-64	70	7.4	980	64	47	72	4	0	246	198	3.07	1.4	0.2	0.18	--	1213	353
12N/35W-34G 4 S 6-24-64	64	7.6	1160	104	55	55	3	0	377	183	69	3	0.05	0.12	0.05	638	578
12N/35W-35E 3 S 6-24-64	66	7.4	1100	94	57	3	0	6.18	3.81	74	1.9	0.2	0.08	--	730	486	
12N/35W-35H 2 S 7-17-64	64	8.2	1090	110	60	60	4	0	366	197	5	0.2	0.10	--	678	477	
31S/12E-32D 2 M 8-11-64	--	7.4	2900	190	97	370	10	0	565	94	77	0	1.2	0.39	--	716	666
31S/14E-31K 1 M 6-3-64	--	7.6	789	90	43	27	2	0	383	122	1.8	2.4	0.5	0.04	0.06	770	521
31S/14E-32G 3 M 6-3-64	59	8.0	838	78	43	40	2	0	296	157	3.2	0.5	0.03	0.02	0.03	709	523
				3.089	3.054	1.74	0.05	1.9	4.85	3.27	0.90	1.0	54	36		554	372
				4.2												500	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction				Mineral constituents in parts per million								
				Calcium C. Ca	Magnesium M. Mg	Sodium N. Na	Potassium K. K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl. Cl	Nitrate NO ₃	Barium Ba	Sulfur S. S	Fluoride F. F	Total hardness as CaCO ₃
ARROYO GRANDE HYDRO SUBUNIT T10C0 ARROYO GRANDE HYDRO SUBAREA T10C1																
32S/12E-13J 1 M 6-18-64	64	8.0	2450	163 8.13	98 8.06	302 13.13	14 0.36	0 44	805 13.19	246 5.12	418 11.79	4 0.06	0.84	--	1766	810
32S/13E-1H 1 M 6- 3-64	--	8.5	887	103 5.14	50 4.11	29 1.26	2 0.05	26 0.87	338 5.54	147 3.06	29 0.82	0.5 0.01	0.03	--	1642	463
32S/13E-12C 1 M 6- 3-64	--	8.1	992	100 4.99	63 5.18	30 1.30	2 0.05	0 6.72	410 6.72	172 3.58	35 0.99	3 0.05	0.09	--	553	509
32S/13E-12C 4 M 6- 3-64	--	8.0	1103	101 5.04	68 5.59	40 1.74	2 0.05	0 4.75	290 6.25	300 1.30	46 0.5	0 0.10	0.10	--	607	532
32S/13E-12N 1 M 6- 3-64	64	7.1	1889	263 13.12	108 8.88	49 2.13	2 0.05	0 4.70	540 13.41	644 8.85	62 1.75	0.5 0.01	0.17	--	808	700
32S/13E-12Q 2 M 6- 3-64	--	7.1	984	92 4.59	48 3.95	46 2.00	1 0.03	0 4.70	287 3.91	188 3.00	71 2.00	0 0.5	0.08	--	1544	1101
32S/13E-13C 2 M 6- 3-64	64	8.2	1059	87 4.34	73 6.00	60 2.61	3 0.08	0 20	508 8.33	163 3.39	19 50	0.04 0.10	0.23	40	588	517
32S/13E-15K 1 M 6-18-64	--	6.7	650	35 1.75	17 1.40	88 3.83	3 0.08	0 1	57 0.93	41 0.85	175 4.94	6 0.10	0.08	--	750	732
															403	427
															393	158

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	Specific conductance (micro-mhos at 25°C)	pH	Mineral constituents in parts per million equivalents per million				Mineral constituents in parts per million						
				Calcium	Magnesium	Sodium	Potassium	Chloride	Sulfate	Bicarbonate	Nitrate	Fluoride	Boron	Silica
Date sampled				CO ₃	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂
ARROYO GRANDE HYDRO SUBUNIT														
32S/13E-15L 1 M	73	7.7	380	1.25	0.74	0.9	4.5	0	117	19	55	0	0.05	--
6-18-64				31	18	49	0.08	1.92	0.40	1.55	40			244
32S/13E-19J 2 M	--	7.0	290	0.60	0.33	4	4.8	0	30	2	46	69	0.05	100
3- 6-64				20	11	68	0.05	0.49	0.04	1.04	38	1.11		214
32S/13E-19L 1 M	--	7.1	400	1.20	0.66	8	50	1	0	45	37	50	0.02	47
3- 6-64				30	16	53	0.03	0.74	0.77	1.41	30	1.11		248
32S/13E-19P 1 M	--	7.3	300	0.85	0.49	6	38	2	0	35	5	46	0.02	219
3- 7-64				28	16	54	0.05	0.57	0.10	1.30	31	0.87		198
32S/13E-19Q 1 M	--	6.5	450	2.2	1.10	10	62	2	0	39	36	66	0.05	93
3- 6-64				70	82	58	0.05	0.64	0.75	1.29	39	1.29		294
32S/13E-19R 1 M	--	6.8	630	4.3	1.15	16	73	2	0	14	17	41	0.05	67
3- 6-64				32	20	47	0.05	0.30	1.54	2.50	33	2.50		211
32S/13E-20M 1 M	--	7.1	500	1.15	0.66	8	35	80	0	123	14	92	0.05	308
3- 4-64				21	12	28	2.05	2.02	0.29	2.59	50	0.32		174
32S/13E-20M 3 M	68	7.1	700	1.40	2.38	29	78	1	0	28	85	142	0.05	449
3- 4-64				19	33	47	0.03	0.46	1.77	2.31	26	2.29		91
SAN LUIS OBISPO HYDRO UNIT														
T1000														
T10CC														
T1CC1														

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in						Mineral constituents in					
				Calcium C o	Magnesium M g	Sodium N a	Chloride C l	Carbonate C O ₃	Bicarbonate H C O ₃	Sulfate S O ₄	Chloride C l	Nitrate N O ₃	Fluoride F	Boron B	Sulfur S O ₂
ARROYO GRANDE HYDRO SUBUNIT T10C0															
32S/13E-20N 3 M	63	6.7	650	1.30	2.30	3.22	0.03	0	0.46	1.60	2.40	1.33	0.1	0.05	--
6-17-64				19	34	47		7		24	36	33			4.70
32S/13E-20N 1 M	--	7.2	900	71	40	6.0	3	0	1.70	1.35	78	116	0.1	0.10	--
6-17-64				3.54	3.29	2.61	0.08	2.79	2.81	2.0	1.87	19			4.38
32S/13E-20N 5 M	--	7.0	600	29	19	70	2	0	0.62	1.94	63	107	0.1	0.05	630
3- 5-64				1.45	1.56	3.04	0.05		10	32	29	29			34.2
32S/13E-22D 1 M	64	7.6	2163	290	131	93	4	0	555	719	115	102	0.8	0.20	587
6- 4-64				14.47	10.77	4.04	0.10	9.10	14.97	3.24	1.65	11			151
32S/13E-22R 1 M	64	7.8	2020	235	147	82	7	0	752	584	99	4.6	0.6	0.16	450
6- 4-64				11.73	12.09	3.57	0.18	12.33	12.16	2.79	0.07				4.30
32S/13E-23F 1 M	64	7.3	1827	213	117	92	3	0	724	469	102	8.0	0.5	0.24	1871
6- 4-64				10.63	9.62	4.00	0.08	11.87	9.6	2.88	0.13	1			1263
32S/13E-24A 2 M	64	7.7	1240	166	57	64	1	0	440	329	59	0	0.4	0.18	980
6- 4-64				8.28	4.69	2.78	0.03	7.21	6.85	1.66	11				649
32S/13E-24D 1 M	66	7.7	1360	174	60	82	5	0	529	308	71	0	0.4	0.16	920
6- 4-64				8.68	4.93	3.57	0.13	2.21	5.1	3.8	12				681
SAN LUIS OBISPO HYDRO UNIT T1000															
32S/13E-20N 3 M	63	6.7	650	1.30	2.30	3.22	0.03	0	0.46	1.60	2.40	1.33	0.1	0.05	--
6-17-64				19	34	47		7		24	36	33			4.70
32S/13E-20N 1 M	--	7.2	900	71	40	6.0	3	0	1.70	1.35	78	116	0.1	0.10	--
6-17-64				3.54	3.29	2.61	0.08	2.79	2.81	2.0	1.87	19			4.38
32S/13E-20N 5 M	--	7.0	600	29	19	70	2	0	0.62	1.94	63	107	0.1	0.05	587
3- 5-64				1.45	1.56	3.04	0.05		10	32	29	29			450
32S/13E-22D 1 M	64	7.6	2163	290	131	93	4	0	555	719	115	102	0.8	0.20	1871
6- 4-64				14.47	10.77	4.04	0.10	9.10	14.97	3.24	1.65	11			1263
32S/13E-22R 1 M	64	7.8	2020	235	147	82	7	0	752	584	99	4.6	0.6	0.16	1671
6- 4-64				11.73	12.09	3.57	0.18	12.33	12.16	2.79	0.07				1192
32S/13E-23F 1 M	64	7.3	1827	213	117	92	3	0	724	469	102	8.0	0.5	0.24	1432
6- 4-64				10.63	9.62	4.00	0.08	11.87	9.6	2.88	0.13	1			1013
32S/13E-24A 2 M	64	7.7	1240	166	57	64	1	0	440	329	59	0	0.4	0.18	1403
6- 4-64				8.28	4.69	2.78	0.03	7.21	6.85	1.66	11				980
32S/13E-24D 1 M	66	7.7	1360	174	60	82	5	0	529	308	71	0	0.4	0.16	920
6- 4-64				8.68	4.93	3.57	0.13	2.21	5.1	3.8	12				681

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents				parts per million equivalents per million percent reactivities value				Mineral constituents in parts per million				
				Calcium C. o.	Magnesium M. g.	Sodium N. a.	Potassium K.	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl.	Nitrate NO ₃	Fluoride F.	Boron B.	Silicate SiO ₂	Total dissolved solids TDS °C
ARROYO GRANDE HYDRO SUBUNIT T10C0																
ARROYO GRANDE HYDRO SUBAREA T10C1																
325/13E-24D51 M	64	7.8	1656	155	114	93	2	0	647	344	104	5.6	0.7	0.20	4.0	1239
6-4-64				7.73	9.38	4.04	0.05		10.60	7.16	2.93	0.09				856
325/13E-28A 1 M	--	7.6	2177	11.48	8.72	6.61	0.15	0	681	585	118	3.3	0.7	0.02	--	1177
6-17-64				11.48	8.72	6.61	0.15		11.16	12.18	3.33	0.05				1011
325/13E-28E 1 M	66	7.7	1041	108	52	49	2	0	390	157	55	25	0.4	0.16	--	1536
6-17-64				5.39	4.28	2.13	0.05		6.39	3.27	1.55	0.40				484
325/13E-28E 5 M	--	7.8	1061	106	53	50	2	0	392	157	56	26	0.4	0.20	--	705
6-17-64				5.29	4.16	2.17	0.05		6.42	3.27	1.58	0.42				483
325/13E-29D 1 M	--	7.6	971	108	46	42	3	0	421	143	32	6	0.3	0.05	--	643
6-17-64				5.39	3.78	1.83	0.08		6.90	2.98	0.90	0.10				459
325/13E-29D 2 M	66	7.1	650	48	19	61	2	0	69	62	81	116	0.1	0.08	--	587
6-17-64				2.40	1.56	2.65	0.05		1.13	1.29	2.28	1.87				478
325/13E-29D 3 M	--	7.6	575	32	15	51	2	0	46	41	68	95	0.2	0.50	--	626
6-17-64				1.60	1.23	2.22	0.05		0.75	0.85	1.92	1.53				423
325/13E-29E 1 M	--	7.6	930	69	33	58	3	0	124	72	118	0.2	0.10	29	563	198
7-3-64				3.44	2.71	2.52	0.08		2.03	2.79	1.90	2.03				327
				31	29	1			23	32	23					308
																577

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reactivities value				Mineral constituents in parts per million																		
				Calcium C.O.	Magnesium M.g.	Sodium N.O.	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Sulfur S.O ₂															
ARROYO GRANDE HYDRO SUBUNIT ARROYO GRANDE HYDRO SUBAREA																														
32S/13E-29E 2 M	7-3-64	--	7.4	1013	82	3.7	57	0	1.79	13.6	.82	100.0	0.1	0.20	29															
32S/13E-29E 3 M	66	7.6	900	69	4.7	3.04	4.09	2.48	0.08	2.93	2.83	1.61	0.1	0.20	595															
6-17-64	7-3-64	--	7.4	977	82	3.44	3.87	2.52	0.08	1.91	1.34	73	1.73	0.1	614															
32S/13E-29E 5 M	66	7.1	755	62	28	56	3	0	3.13	2.79	2.06	1.73	0.13	--	644															
6-17-64	7-3-64	--	7.4	952	102	3.09	2.30	2.43	0.08	1.59	1.75	59.0	0.2	0.20	585															
32S/13E-29G 2 M	64	8.2	770	59	28	58	3	0	1.39	0.08	1.82	1.33	72	0.95	0.20	566														
6-17-64	7-3-64	--	7.6	1057	102	5.09	4.11	1.70	0.05	1.59	1.75	59.0	0.2	0.20	561															
32S/13E-30H 2 M	66	7.6	806	58	26	61	3	0	1.80	1.81	2.06	2.15	2.7	0.15	--	536														
6-17-64	7-3-64	--	7.2	1057	102	5.09	3.95	2.26	0.05	3.05	1.60	2.74	0.42	0.30	533															
32S/13E-30L 2 M	66	7.5	806	58	26	61	3	0	1.80	1.81	2.06	2.15	2.7	0.15	--	493														
6-17-64	7-3-64	--	7.2	1057	102	4.95	3.5	2.05	0.05	5.00	2.91	2.74	0.42	0.30	495															
32S/13E-30R 1 M	66	7.2	806	58	26	61	3	0	1.80	1.81	2.06	2.15	2.7	0.15	--	493														
6-17-64	7-3-64	--	7.2	1057	102	2.89	2.14	2.65	0.08	1.16	2.64	1.97	1.98	0.28	533															
SAN LUIS OBISPO HYDRO UNIT																														
T1000																														

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reaaction value				Mineral constituents in parts per million							
				Calcium C. O.	Magnesium M. g.	Sodium N. a.	Potassium K.	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl.	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total hardness Evap 60°C Evap 50°C CaCO ₃			
ARROYO GRANDE HYDRO SUBUNIT T10C0																			
32S/13E-30R 2 M 6-17-64	--	7.1	896	6.9	3.44	2.47	2.65	0.05	0	88	1.22	76	156	0.2	0.40	--	629	296	
32S/13E-30R11 M 6-17-64	--	7.8	710	5.5	2.74	1.73	2.74	0.05	0	69	1.13	2.54	2.52	2.29	0.1	0.10	--	560	224
32S/13E-31H 1 M 7-7-64	--	8.4	1640	10.8	5.39	1.14	8.0	3	7	440	334	128	61	120	1.94	0.1	--	580	224
32S/13E-32A 1 M 6-4-64	--	7.1	822	7.0	3.49	3.13	2.00	0.05	0.23	7.21	6.05	3.61	0	0.1	0.17	--	477	739	
32S/13E-32C 2 M 6-17-64	64	7.9	555	3.3	1.65	2.47	1.57	0.05	0	209	4.0	39	20	144	0.3	0.04	--	1206	739
32S/13E-32E 2 M 6-17-64	64	7.7	928	5.7	3.1	7.9	2	0	59	0.97	2.06	2.45	150	0.2	0.26	--	991	331	
32S/13E-32E 1 M 2-19-64	67	7.3	940	8.6	4.29	5.18	1.52	0.05	0	405	1.78	3.2	0	0.1	0.09	0.1	560	331	
32S/13E-32H 1 M 6-4-64	--	7.7	1252	1.30	6.49	5.43	2.74	0.05	0	307	2.30	85	136	0.6	0.08	0.08	35	860	596
				6.49	5.43	4.44	3.37			35	4.79	5.03	4.40	2.19	1.17			899	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value					Mineral constituents in parts per million equivalents per million percent reaction value					Mineral constituents in parts per million equivalents per million percent reaction value			
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Bicarbonate CO ₃	Carbonate CO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Sulfur S	Total Evap 10 ⁻⁴ C Evap 10 ⁻⁴ CaCO ₃ Computed	
ARROYO GRANDE HYDRO SUBUNIT ARROYO GRANDE HYDRO SUBAREA																	
32S/13E-32L 2 M	69	8.1	1046	56	91	36	0	414	192	37	0	0.02	0.05	--	724	514	
7- 7-64				2.79	7.48	1.57	0.05	6.79	4.00	1.04							
32S/13E-32L 5 M	--	8.0	880	53	61	40	2	0	232	121	57	80	0.2	0.05	--	618	383
7- 7-64				2.64	5.02	1.74	0.05	3.80	2.52	1.61	1.29						
32S/13E-32L 8 M	--	8.0	1007	114	58	33	2	0	444	148	39	1.2	0.3	0.11	--	528	523
6-17-64				5.69	4.77	1.43	0.05	7.28	3.08	1.10	0.02						
32S/13E-32L14 M	--	7.8	1120	107	61	76	5	0	423	216	75	21	0.2	0.09	30	774	518
2-17-64				5.34	5.02	3.30	0.13	6.93	4.50	2.12	0.34						
32S/13E-32L18 M	--	8.0	1500	154	86	89	4	0	486	288	85	0.1	0.14	27	1144	738	
2-18-64				7.68	7.07	3.87	0.10	7.97	6.00	3.47	1.37						
32S/13E-32M 1 M	--	8.1	1200	77	98	46	2	0	446	233	59	22	0.1	0.08	--	844	595
7- 7-64				3.84	8.06	2.00	0.05	7.31	4.85	1.66	0.35						
32S/13E-33A 3 M	--	7.9	2000	212	137	78	2	0	598	545	119	81	0.2	0.12	--	1614	1093
6-24-64				10.58	11.27	3.39	0.05	9.80	11.35	3.36	1.31						
32S/13E-33E 3 M	--	8.0	1360	138	85	54	2	0	376	300	60	125	0.2	0.15	--	1042	695
6-18-64				6.89	6.99	2.35	0.05	6.16	6.25	1.69	2.02						
SAN LUIS OBISPO HYDRO UNIT																	
T1000																	
32S/13E-32L 2 M	69	8.1	1046	56	91	36	0	414	192	37	0	0.02	0.05	--	724	514	
7- 7-64				2.79	7.48	1.57	0.05	6.79	4.00	1.04							
32S/13E-32L 5 M	--	8.0	880	53	61	40	2	0	232	121	57	80	0.2	0.05	--	618	383
7- 7-64				2.64	5.02	1.74	0.05	3.80	2.52	1.61	1.29						
32S/13E-32L 8 M	--	8.0	1007	114	58	33	2	0	444	148	39	1.2	0.3	0.11	--	528	523
6-17-64				5.69	4.77	1.43	0.05	7.28	3.08	1.10	0.02						
32S/13E-32L14 M	--	7.8	1120	107	61	76	5	0	423	216	75	21	0.2	0.09	30	774	518
2-17-64				5.34	5.02	3.30	0.13	6.93	4.50	2.12	0.34						
32S/13E-32L18 M	--	8.0	1500	154	86	89	4	0	486	288	85	0.1	0.14	27	1144	738	
2-18-64				7.68	7.07	3.87	0.10	7.97	6.00	3.47	1.37						
32S/13E-32M 1 M	--	8.1	1200	77	98	46	2	0	446	233	59	22	0.1	0.08	--	844	595
7- 7-64				3.84	8.06	2.00	0.05	7.31	4.85	1.66	0.35						
32S/13E-33A 3 M	--	7.9	2000	212	137	78	2	0	598	545	119	81	0.2	0.12	--	1614	1093
6-24-64				10.58	11.27	3.39	0.05	9.80	11.35	3.36	1.31						
32S/13E-33E 3 M	--	8.0	1360	138	85	54	2	0	376	300	60	125	0.2	0.15	--	1042	695
6-18-64				6.89	6.99	2.35	0.05	6.16	6.25	1.69	2.02						

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C.)	Mineral constituents in parts per million equivalents per million percent reacione value								Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfur dioxide	Total hardness °S
SAN LUIS OBISPO HYDRO UNIT																
ARROYO GRANDE HYDRO SUBUNIT	ARROYO GRANDE HYDRO SUBAREA	TI000	TI000													
325/13E-33F 1 M	60	7.6	1370	90	113	55	0	4.72	288	53	4.6	0.17	--	934	690	
6-19-64				4.049	9.29	2.39	0.08	7.74	6.00	1.49	0.74					
				28	57	15		4.8	38	9	5					
325/13E-33G 1 M	64	7.5	1761	226	105	69	3	0	534	498	100	50	0.08	0.09	880	
6- 4-64				11.28	8.64	3.00	0.08	8.75	10.37	2.82	0.81					
				49	38	13		38	46	12	4					
325/13E-33K 1 M	64	7.4	1931	240	126	74	3	0	588	540	110	71	0.08	0.08	1349	
6- 4-64				11.98	10.36	3.22	0.08	9.64	11.24	3.10	1.15					
				47	40	13		38	45	12	5					
325/13E-33K 3 M	64	7.9	1867	229	116	74	2	0	567	510	105	62	0.09	0.08	34	1524
6- 4-64				11.43	9.54	3.22	0.05	9.29	10.62	2.96	1.00					
				47	39	13		39	44	12	4					
325/13E-33M 2 M	62	8.1	1730	208	117	67	2	0	562	481	74	93	0.06	0.10	--	1412
6-18-64				10.38	9.62	2.91	0.05	9.21	10.01	2.09	1.50					
				45	42	13		40	44	9	7					
325/13E-34G 2 M	64	7.4	1650	121	77	162	2	0	352	403	167	25	0.04	0.18	--	1412
6-24-64				6.004	6.33	7.04	0.05	5.77	8.39	4.71	0.40					
				31	33	36		30	44	24	2					
325/14E-7J 1 M	68	7.5	1372	112	86	94	3	0	483	263	105	7.2	0.07	0.24	43	1319
6- 4-64				5.59	7.07	4.09	0.08	7.92	5.48	2.96	0.12					
				33	42	24		48	33	18	1					
325/14E-7K 1 M	--	7.0	1623	145	103	90	8	0	493	403	123	14	0.07	0.24	53	1044
6- 4-64				7.24	8.47	3.91	0.20	8.08	8.39	3.47	0.23					
				37	43	20		40	42	17	1					

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T1)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in						Mineral constituents in								
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	TDS	Total hardness °S	Total Evap 105°C
Date sampled				Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	F	B	SiO ₂				Evap 105°C	Computed CaCO ₃
ARROYO GRANDE HYDRO SUBUNIT																		
32S/14E-8N 1 M	--	7.2	1783	159	135	82	0	511	503	121	9.4	0.7	0.16	52	1407	952		
6- 4-64				7.93	11.10	3.57	0.05	8.38	10.47	3.41	0.15							
				35	49	16		37	47	15								
32S/14E-18F 3 M	--	7.5	1525	110	116	105	--	0	695	205	50	0.2	0.40	30	1084	1315		
6- 4-64				5.49	9.54	4.57		11.39	4.27	2.99	0.81							
				35	49	23		59	59	15								
32S/14E-18F 4 M	--	7.7	1350	115	83	91	--	0	610	179	28	0.2	0.22	30	934	1064		
6- 4-64				5.74	6.83	3.96		10.00	3.73	2.40	0.45							
				35	41	24		60	22	14								
32S/14E-19A 1 M	64	7.6	1020	66	80	59	1	0	451	165	50	0.4	0.2	32	724	724		
6- 4-64				3.29	6.58	2.57	0.03	7.39	3.44	1.41	0.14							
				26	53	21		60	28	11								
32S/14E-19D 3 M	--	7.7	2750	163	198	--	0	487	245	642	59	0.2	0.22	35	2150	683		
6- 4-64				10.38	13.41	8.61		7.98	5.10	18.10	0.95							
				32	41	27		25	16	56								
NIPOMO MEZA HYDRO SUBAREA																		
11N/34W-8H 1 S	69	7.4	1400	95	82	120	4	0	463	288	123	0	0.12	--	942	574		
7- 8-64				4.74	5.22	0.10		7.59	6.00	3.47								
				28	31	1		44	35	20								
11N/34W-8J 1 S	60	7.4	1550	170	82	100	2	0	494	183	190	1.5	0.2	0.10	--	1012	940	
7- 8-64				8.48	6.74	4.35	0.05	8.10	3.81	5.36	0.24							
				43	34	22		46	22	31								

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value					Mineral constituents in parts per million							
				Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfur dioxide	Total Evap. 80°C as Evap. 105°C Compounded	Total hardness as CaCO ₃
ARROYO GRANDE HYDRO SUBUNIT NIPOMO MESA HYDRO SUBAREA																
11N/34W- 80 1 S 6-30-64	65	7.7	1200	1.03 5•14	54 4•44	1 0.03	0	390 6•39	168 3•50	125 3•53	20 0•32	0•12	—	774	479	
11N/34W- 80 2 S 6-30-64	66	7.5	1280	88 4•39	60 4•93	1 0.03	0	367 6•02	147 3•06	135 3•81	18 0•29	0•07	—	754	466	
11N/34W- 80 3 S 6-30-64	66	7.7	1210	92 4•59	56 4•61	1 0.03	0	380 6•23	156 3•25	124 3•50	17 0•27	0•07	—	802	466	
11N/34W- 80 4 S 6-30-64	67	7.5	1280	47 2•35	96 7•90	1 0.03	0	481 7•88	151 3•14	100 2•82	31 0•50	0•09	—	724	724	
11N/34W- 8R 1 S 6-30-64	67	7.5	1470	101 5•04	68 5•44	4 0.10	0	445 7•29	183 3•81	184 5•19	9 0•15	0•09	—	758	460	
11N/34W- 8R 2 S 6-30-64	65	7.6	1460	135 6•74	67 5•51	100 4•35	2 0.05	538 8•82	111 2•31	197 5•56	4 0•06	0•09	—	725	725	
11N/34W- 9M 2 S 7- 8-64	68	7.3	1500	76 3•79	103 8•47	2 0.05	0	452 7•41	189 3•93	184 5•19	2 0•03	0•02	12•00	—	814	
11N/34W- 9N 1 S 6-30-64	66	7.3	1440	65 3•24	107 8•80	1 0.03	0	454 7•44	166 3•46	190 5•36	6 0•10	0•09	—	942	602	
															851	851
SAN LUIS OBISPO HYDRO UNIT T1000																

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				Mineral constituents in				Mineral constituents in parts per million
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	
Date sampled												Total hardness °C
ARROYO GRANDE HYDRO SUBUNIT NIPOMO MESA HYDRO SUBAREA												
11N/34W-19N 2 S	66	7.4	1270	119	58	80	1	0	400	207	119	0.09
6-30-64				5.94	4.77	3.48	0.03		6.56	4.31	3.36	--
				4.62	3.4	24			4.6	30	23	832
11N/34W-17A 1 S	73	7.4	1290	115	60	99	3	0	437	170	142	0.09
6-30-64				5.74	4.93	4.30	0.08		7.16	3.54	4.00	--
				3.8	3.3	29	1		4.8	24	27	788
11N/34W-17B 1 S	65	7.4	1240	99	60	97	2	0	417	168	126	0.09
6-30-64				4.94	4.93	4.22	0.05		6.83	3.50	3.55	--
				3.5	3.5	30			4.8	25	25	836
7- 8-64	67	7.4	1300	70	85	93	3	0	423	173	140	0.10
				3.49	6.99	4.04	0.08		6.95	3.60	3.95	--
				2.4	4.8	28	1		4.7	25	27	817
11N/34W-17B 2 S	66	7.4	1300	117	61	94	1	0	470	173	122	0.09
6-30-64				5.84	5.02	4.09	0.03		7.70	3.60	3.44	--
				3.9	3.4	27			51	24	23	817
11N/34W-17B 3 S	66	7.5	1240	99	60	93	1	0	413	163	122	0.07
6-30-64				4.94	4.93	4.04	0.03		6.77	3.39	3.44	--
				3.5	3.5	29			4.9	24	25	826
11N/34W-17N 3 S	--	7.1	220	13	2	32	1	0	51	7	35	0.01
7-17-64				0.65	0.16	1.39	0.03		0.84	0.15	0.99	--
				2.9	7	62	1		3.8	45	11	130
11N/35W-7R 1 S	70	7.5	1241	138	50	66	3	0	232	4.21	2.3	0.15
6-18-64				6.89	4.11	2.87	0.08		3.08	8.77	1.30	--
				4.9	2.9	21	1		27	63	9	841

SAN LUIS OBISPO HYDRO UNIT

T1000

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in equivalents per million						Mineral constituents in parts per million								
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Ferrous	Boron	Sulfur	TDS	Total Evap 10°C	Hardness
Date sampled				Mg	No	K	CO ₂	HCO ₃	SO ₄	Cl	F	B	S	SO ₂	Ca	CaCO ₃		
ARROYO GRANDE HYDRO SUBUNIT T10C0																		
11N/35W-9P 1 S	--	7.0	250	0.70	1.4	3	0.2	0	4.7	15	4.8	4.4	0.1	0.05	32	179	48	
12-6-63				0.70	0.26	1.57	0.05	0.77	0.31	1.35	0.07							
11N/35W-10M 1 S	--	7.3	280	0.45	0.33	1.57	0.05	0	5.2	2	5.1	6.5	0.1	0	--	178	39	
6-18-64				0.45	0.33	1.57	0.05	0.85	0.04	1.44	0.10							
11N/35W-10R 1 S	--	7.9	236	0.35	0.25	1.39	0.03	0	3.1	5	4.7	7.5	0	0	--	180	36	
6-18-64				0.35	0.25	1.39	0.03	0.51	0.10	1.33	0.12							
11N/35W-11B 1 S	72	7.6	232	0.50	0.33	1.13	0.03	0	4.1	4	4.5	2.5	0.3	0	--	168	30	
6-18-64				0.50	0.33	1.13	0.03	0.67	0.08	1.27	0.04							
11N/35W-11J 1 S	72	6.8	254	0.45	0.41	1.30	0.03	0	3.7	5	4.8	6.5	0.1	0	--	118	42	
6-18-64				0.45	0.41	1.30	0.03	0.61	0.10	1.35	0.10							
11N/35W-12E 1 S	--	7.1	230	0.55	0.33	1.39	0.03	0	5.2	7	4.4	0.9	0.2	0.03	39	113	44	
12-6-63				0.55	0.33	1.39	0.03	0.85	0.15	1.24	0.01							
11N/35W-13D 1 S	71	6.9	447	1.35	0.82	1.83	0.05	0	8.3	17	8.2	2	0.3	0.06	--	192	43	
6-19-64				1.35	0.82	1.83	0.05	1.36	0.35	2.31	0.03							
11N/35W-13D 1 S	74	7.5	1143	3.84	4.11	3.96	0.08	50	91	0	322	174	1.5	0.1	0	--	223	398
6-18-64				3.84	4.11	3.96	0.08	1.44	0.28	3.62	0.97	0.02						
				3.2	3.4	3.3	1			30	25							

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (1)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos of 25°C)	Mineral constituents in					parts per million equivalents per million percent reaction value					Mineral constituents in parts per million					
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fu. cal.	Boron	Silica	TDS	Evap 80°C	Evap 105°C	Total hardness as CaCO ₃
ARROYO GRANDE HYDRO SUBUNIT NIPOMO MESA HYDRO SUBAREA																			
11N/35W-140 1 S	--	7.9	568	4.0	1.56	2.00	1.56	1.83	0.05	2	0	132	75	1.56	8.5	0.1	0.05	--	395
6-18-64				37	29	34	29	34	1	40	2.16	1.29	0.14	0.14	3	29	--	178	
12N/35W-27M 1 S	--	7.1	760	4.3	35	65	3	0	135	35	169	12	0.2	0.08	--	308			
6-24-64				2.15	2.88	2.83	0.08	2.21	0.73	4.77	0.19	60	2	0.19	0.19	2	60	572	
12N/35W-29N 1 S	62	7.2	1727	206	9.1	66	2	0	423	480	112	0	0.7	0	0	--	429	252	
6-18-64				10.28	7.48	2.87	0.05	6.93	9.99	3.16	16	0.16	0.16	16	16	0.16	0.16	1474	
12N/35W-29R 1 S	--	6.2	205	8	2	36	1	0	37	4	23	4.6	0.2	0.07	31	174		889	
4-14-64				0.40	0.16	1.57	0.03	0.61	0.08	0.65	0.74	31	36	0.74	0.74	36	36	1166	
6-18-64	--	7.4	240	8	2	34	1	0	28	3	27	52	0.1	0.13	--	177		28	
6-19-64				0.40	0.16	1.48	0.03	0.46	0.06	0.76	0.84	36	40	0.84	0.84	40	40	141	
12N/35W-32P 1 S	--	7.6	370	13	4	65	2	0	63	11	76	20	0.2	0.15	--	210		49	
6-18-64				0.65	0.33	2.83	0.05	1.03	0.23	2.14	3.12	2.14	3.12	3.12	3.12	3.12	3.12	222	
12N/35W-33J 1 S	--	7.1	244	8	5	28	2	0	29	3	4.6	1.7	0	0.04	--	206		41	
6-18-64				0.40	0.41	1.22	0.05	0.48	0.06	1.30	2.27	2.3	2.3	2.3	2.3	2.3	2.3	123	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific Conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent resistance value				Mineral constituents in parts per million						
				Calcium c o	Magnesium M g	Sodium N a	Potassium K	Carbonate C O 3	Bicarbonate H C O 3	Sulfate S O 4	Chloride C l	Nitrate N O 3	Fluoride F	Boron B	Silicon S i O 2	TDS Total Evap 80°C c o		
CARRIZO PLAIN HYDRO UNIT																		
T1000																		
30S/18E-12N 1 S 10-15-63	60	7.6	560	1.75	35	1.47	71	0	210	71	34	29	0.4	0.28	26	382	158	
11N/26W-26 1 S 10-18-63	62	8.1	2700	2.30	46	33	633	4	0	238	805	389	22	0.6	1.66	20	388	251
29S/17E-13R 1 M 10-10-63	66	7.8	800	1.70	34	1.8	125	1	0	162	133	80	67	0.6	0.63	31	2071	159
30S/18E-10 1 M 10-18-63	66	7.5	2700	10.38	208	81	435	2	0	148	1119	304	84	0.4	1.51	23	570	570
30S/18E-2N 1 M 10-10-63	66	8.0	670	2.40	28	6.2	1	0	202	125	41	34	0.1	0.32	31	2490	853	
30S/18E-13M 1 M 10-15-63	68	8.0	730	1.60	32	1.40	125	2	0	253	141	41	18	0.6	0.56	19	2331	2331
30S/18E-14A 1 M 10-15-63	58	7.4	330	1.30	26	1.0	10	5	0	118	29	5	2.2	0.4	0.05	14	470	470
30S/18E-14A 2 M 10-15-63	66	7.7	560	2.69	54	1.40	50	6	0	190	33	41	84	0.4	0.16	34	521	521
																	161	106
																	160	160
																	386	205
																	41.3	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity value						Mineral constituents in parts per million										
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fuoride	Boron	Sulfur	Total hardness °S	Evap °S/C			
Date sampled				Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	S	Calcd °S/C	Computed °S/C			
CARRIZO PLAIN HYDRO UNIT																				
305/19E-8E 1 M 10-14-63	64	7.7	54400	24.2	1.67	1100	8	0	180	216	766	182	0.8	2.44	24	4,980	1292			
305/19E-19K 1 M 10-16-63	68	7.6	69000	12.08	13.73	47.83	0.20	2.95	4.50	21.60	2.94	9	14	6.8	1.17	16	2797			
305/19E-19L 1 M 10-11-63	68	7.5	3150	4.33	102	1.92	1575	8	0	232	324.7	798	16	0.6	1.17	16	64,14	1325		
305/19E-19P 1 M 10-11-63	64	7.8	840	4.1	2.05	1.97	5.39	0.23	3.80	67.60	22.50	24	4.26	2.4	6.18	40	3384	1501		
305/19E-23J 1 M 10-16-63	68	7.7	4900	30.89	1.58	61.9	153	6.65	0	149	224.3	5	6.6	1.00	1.70	40	3338			
305/19E-23K 1 M 10-11-63	67	7.9	5000	4.43	1.69	7.95	7	0	2.44	46.70	0.14	5	0.11	0.11	0.11	40				
305/19E-27A 1 M 10-16-63	66	7.6	15500	22.11	13.90	34.57	0.18	2.39	51.63	12.49	1.37	2	2.4	2.4	3.02	26	5,250	2175		
305/19E-27B 1 M 10-11-63	66	7.7	20000	4.55	3.1	4.9	5.15	5.98	4.450	6	0	190	884.0	29.75	34	0.8	12.00	13	4,834	4,516
				22.70	67.03	250.01	0.15	10	18	72	1	184.05	83.90	0.55	1	68	31	18,824	3747	
				22.70	67.03	250.01	0.15	7	20	74	1	4.26	242.97	104.71	0.39	1	69	30	17,937	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reductance value						Mineral constituents in parts per million					
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Feldspar	Boron	Silicate
Date sampled				C O	C O	C O	C O	S O	S O	B	F	S O	B	S O	Total hardness C O G 3
CARRIZO PLAIN HYDRO UNIT T1100															
30S/19E-29K 1 M 10-11-63	65	7.4	2375	12.13	5.02	14.78	0.05	0	188	1290	78	14	2.4	187.00	30
30S/19E-29M 1 M 10-11-63	66	7.8	2150	5.4	4.4	43.91	0.08	0	126	798	2.20	1	3.0	3.40	5
30S/19E-29N 1 M 10-11-63	60	8.2	975	7.3	4.6	96	3	0	236	288	55	22	1.0	0.49	26
30S/19E-29Q 1 M 10-11-63	63	7.8	5800	100	6.3	1500	8	0	3.87	6.00	1.55	0.35	3	1.3	3
30S/19E-29Q 2 M 10-11-63	65	8.2	1950	74	6.2	317	8	0	328	2432	638	2.7	4.0	0.50	29
30S/19E-30E 1 M 10-10-63	68	8.2	600	4.2	25	58	1	0	216	50.63	17.99	0.04	7	68	24
30S/19E-30G 1 M 10-10-63	--	8.2	1090	76	54	67	8	0	3.54	1.75	0.90	0.65	21	0.4	57
30S/19E-30G 2 M 10-10-63	66	8.1	2150	36	4.44	2.91	0.20	0	216	84	32	1.0	0.22	27	404
				1.80	3.79	2.6	0.20	0	3.52	0.03	52	26	13	10	404
				7	33	39	26	0.10	2.06	0.03	1	91	8	0.6	404
															404

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reacione value							Mineral constituents in parts per million										
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	TDS	Total hardness as CaCO ₃	SiO ₂	SO ₄	Cl	
Date sampled				K	Mg	Na	Cl	HCO ₃	CO ₂	SO ₄	Cl	F	SiO ₂	Equiv 80°C	Equiv 105°C	SiO ₂	SO ₄	Cl	CaCO ₃		
CARRIZO PLAIN HYDRO UNIT																					
30S/19E-32C 1 M	66	7.8	1100	105	73	67	4	0	4.25	300	41	13	0.4	0.19	25	828	562				
10-11-63				5.24	6.00	2.91	0.10	20	6.97	6.25	1.16	0.21									
30S/19E-32G 1 M	68	7.5	1140	74	80	69	3	0	3.72	261	45	21	0.6	0.28	24	854	514				
10-11-63				3.69	6.58	3.00	0.08	22	6.10	5.43	1.27	0.34									
30S/19E-32G 2 M	68	7.5	820	44	49	73	4	0	2.26	234	34	7.6	1.0	0.23	10	626	312				
10-11-63				2.20	4.03	3.17	0.10	33	3.70	4.07	0.96	0.12									
30S/19E-34N 1 M	67	8.1	27500	152	584	9400	1	0	3.53	7096	10851	0	0.2	3.12	10	28740	2783				
10-16-63				7.58	4.80	4.08	71	0.03	3.17	14.7	74	306.00									
30S/20E-18C 1 M	67	7.1	3200	228	112	525	8	0	1.61	1585	266	0	0.6	2.60	9	2946	1030				
10-16-63				11.38	9.21	22.83	0.20	21	2.64	33.00	7.50	17									
30S/20E-31C 1 M	66	6.8	7000	425	368	1500	3	0	2.7	4843	447	49	0.6	2.86	12	8062	2576				
10-16-63				21.21	30.26	65.22	0.08	18	0.44	100.83	12.61	0.79									
30S/20E-33N 1 M	61	7.9	3600	369	147	535	6	0	326	2042	206	5.3	0.6	2.90	31	3734	1526				
10-16-63				18.41	12.09	23.26	0.15	22	5.34	42.51	5.81	0.09									

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reacidence value						Mineral constituents in parts per million							
				Magnesium	Sodium	Potassium	Sulfur	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfur dioxide	Total Evap (BO/C) as Computed	Total hardness as CaCO ₃
SANTA MARIA HYDRO SUBUNIT																	
9N/32W-17G 1 S 10-14-63	64	8.3	1140	120 5.99	71 40	60 2.61	3 0.08	4 0.13	301 4.93	400 8.33	32 0.90	22 0.35	0.24	19	920	592	
5- 6-64	65	7.9	1140	74 3.69	96 7.00	65 2.83	2 0.05	0 0.05	282 4.62	414 8.62	32 0.90	18 0.29	0.18	24	879	580	
9N/33W- 8L 1 S 10-14-63	69	7.6	820	95 4.074	36 2.96	49 2.13	2 0.05	0 0.05	0 4.05	247 5.05	248 5.16	30 0.85	3.9 0.06	0.16	27	968	584
5- 6-64	69	7.5	917	96 4.079	42 3.45	46 2.00	2 0.05	0 0.05	0 4.18	255 4.09	236 4.91	37 1.04	2.5 0.04	0.14	--	864	412
9N/33W- 9A 1 S 10-14-63	--	7.1	530	19 0.95	9 0.74	86 3.74	3 0.08	0 0.08	50 0.82	50 0.31	140 3.95	19 0.31	0.13	35	640	385	
5- 6-64	60	7.0	545	20 1.000	11 0.90	86 3.74	2 0.05	0 0.05	51 0.84	51 0.27	149 4.20	20 0.32	0.09	40	587	412	
9N/33W-12R 1 S 10-14-63	--	7.6	1020	103 5.014	60 4.93	59 2.57	2 0.05	0 0.05	284 4.65	343 7.14	29 0.82	13 0.21	0.24	24	613	412	
5- 6-64	59	8.1	1020	30 1.050	101 8.31	62 2.70	2 0.05	0 0.05	281 4.61	341 7.10	28 0.79	15 0.24	0.18	25	820	491	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalent percent reaction value				Mineral constituents in parts per million				Mineral constituents in parts per million				
				Cerium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silicate	Iron
Date sampled				Na	K	CO ₃	HCO ₃	SO ₄	NO ₃	F	B	SiO ₂	Fe	CaCO ₃		
SANTA MARIA HYDRO SUBUNIT																
9N/33W-18R 1 S 10-21-63	--	7.7	740	3.34 0.90	67 12	11 4.2	0.08 1	73 42	3 1	0 2.72	1.66 0.96	122 3.44	0.1 0.24	4.0 3	476 459	
5- 6-64	65	7.2	791	3.19 1.32	64 18	16 39	0.08 1	67 39	3 1	0 2.61	159 35	52 1.08	123 3.47	17 0.27	0.09 4.7	-- 4.82
9N/34W- 9E 1 S 10-15-63	--	7.3	570	1.35 1.32	27 22	16 54	0.08 1	75 54	3 1	0 0.80	49 13	48 1.00	140 3.95	13 0.21	0.09 4.7	4.20 4.82
5- 7-64	67	7.8	756	4.3 2.05	43 30	24 28	0.97 0.05	68 42	2 1	0 1.43	87 20	92 1.92	122 3.44	12 0.19	0.09 3	4.08 4.06
10N/33W-20J 1 S 12- 6-63	--	8.2	1340	1.40 6.99	77 39	107 35	4 0.10	91 26	4 1	0 4.29	262 24	563 11.72	60 1.69	25 0.40	0.29 2	19 11.7
10N/34W- 6N 1 S 5- 6-64	61	8.1	1800	1.39 6.94	143 30	91 52	0.10 17	91 17	4 1	0 5.20	317 23	648 23	85 60	240 11	0.2 7	1242 1384
10N/34W-14E 1 S 5- 6-64	65	8.1	1650	4.34 6.00	87 30	73 41	0.04 0.08	93 29	3 1	0 4.29	262 22	548 11.41	81 2.28	76 12.23	0.29 6	-- 10.90
10N/34W-14E 5 S 5- 6-64	--	7.9	1575	5.69 9.87	114 120	95 91	0.08 0.08	0 21	3 21	0 4.03	246 20	591 12.30	76 2.14	88 1.42	0.22 11	21 7
SANTA MARIA-CUYAMA HYDRO UNIT																
T12A0																
9N/33W-18R 1 S 10-21-63	--	7.7	740	3.34 0.90	67 12	11 4.2	0.08 1	73 42	3 1	0 2.72	1.66 0.96	122 3.44	0.1 0.24	4.0 3	476 459	
5- 6-64	65	7.2	791	3.19 1.32	64 18	16 39	0.08 1	67 39	3 1	0 2.61	159 35	52 1.08	123 3.47	17 0.27	0.09 4.7	4.20 4.82
9N/34W- 9E 1 S 10-15-63	--	7.3	570	1.35 1.32	27 22	16 54	0.08 1	75 54	3 1	0 0.80	49 13	48 1.00	140 3.95	13 0.21	0.09 4.7	4.08 4.06
5- 7-64	67	7.8	756	4.3 2.05	43 30	24 28	0.97 0.05	68 42	2 1	0 1.43	87 20	92 1.92	122 3.44	12 0.19	0.09 3	4.59 4.06
10N/33W-20J 1 S 12- 6-63	--	8.2	1340	1.40 6.99	77 39	107 35	4 0.10	91 26	4 1	0 4.29	262 24	563 11.72	60 1.69	25 0.40	0.29 2	19 11.7
10N/34W- 6N 1 S 5- 6-64	61	8.1	1800	1.39 6.94	143 30	91 52	0.10 17	91 17	4 1	0 5.20	317 23	648 23	85 60	240 11	0.2 7	1242 1384
10N/34W-14E 1 S 5- 6-64	65	8.1	1650	4.34 6.00	87 30	73 41	0.04 0.08	93 29	3 1	0 4.29	262 22	548 11.41	81 2.28	76 12.23	0.29 6	-- 10.90
10N/34W-14E 5 S 5- 6-64	--	7.9	1575	5.69 9.87	114 120	95 91	0.08 0.08	0 21	3 21	0 4.03	246 20	591 12.30	76 2.14	88 1.42	0.22 11	21 7

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reionizance value				Mineral constituents in parts per million												
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Baron	Sulfate	TDS					
Date sampled	C.O.	M.g.	N.O.	K	CO ₂	HCO ₃	SO ₄	Cl	NO ₃	F	B			Evap 180°C Complicated	Evap 109°C Complicated	Hardness °S				
SANTA MARIA HYDRO SUBUNIT																				
10N/34W-29N 1 S 12-6-63	--	8.3	800	3.77	4.5	50	2	2.17	0.05	237	245	28	3.6	0.2	0.14	26	646	377		
				3.84	3.9	3.8		2.0	0.07	3.88	5.10	0.79	0.06	1				595		
5-18-64	--	7.8	1750	6.44	11.68	142	100	4	0	300	689	72	66	0.4	0.27	26	1534	907		
				29	52	19		4.35	0.10	4.92	14.34	2.03	1.06	5				1376		
9-21-64	--	7.7	1600	1.54	88	100	4	0	252	663	60	0	0.4	0.17	--			1234	747	
				7.68	7.24	4.35	0.10	4.13	13.80	1.69										
10N/34W-31N 1 S 5-18-64	--	7.6	900	2.89	5.10	62	59	2	0	258	223	57	4.1	0.2	0.15	36	698	400		
				27	48	24	0.05	4.23	4.64	1.61	0.7	1						628		
9-21-64	--	7.6	940	4.89	2.96	36	61	2	0	263	226	55	4	0.1	0.12	--			662	393
				46	28	25		2.65	0.05	4.31	4.71	1.55	0.06	1						
10N/34W-34E 2 S 5-18-64	--	7.7	880	3.14	5.10	62	49	3	0	248	256	29	3.7	0.2	0.18	36	692	412		
				30	49	20	1	2.13	0.08	4.06	5.33	0.82	0.06	1					624	
9-21-64	--	7.7	940	3.99	4.19	80	51	54	3	0	250	276	31	2	0.1	0.10	--	690	409	
				38	39	22	1	2.35	0.08	4.10	5.75	0.87	0.03	8					620	
10N/35W-6A 1 S 2-6-64	6.2	8.1	1800	3.89	12.17	78	148	4	0	496	591	76	9.8	0.8	0.40	23	1455	804		
				17	53	29	0.10	6.70	12.30	8.13	12.30	2.14	0.16	9				1329		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reoacitance value						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Total hardness as CaCO ₃	
Date sampled				Na	K	CO ₃	HCO ₃	SO ₄	Cl	F	B	SiO ₂			Calculated		
SANTA MARIA HYDRO SUBUNIT																	
T112AO																	
10N/35W-6A 3 S	62	8.2	1130	127	4.9	70	3	0	254	379	4.6	2.4	0.6	0.16	15	878	519
2- 6-64				6.34	4.03	3.04	0.08	4.16	7.89	1.30	0.04						
				47	30	23	1	31	59	10							
10N/35W-7F 1 S	65	8.0	2045	247	103	4	0	288	782	135	3	0.6	0.21	--			
5- 7-64				12.33	8.47	4.39	0.10	4.72	16.28	3.81	0.05						
				49	33	17		19	65	15							
10N/35W-9N 1 S	--	7.8	2262	247	87	186	4	0	321	907	123	6.5	0.5	0.33	--		
5- 7-64				12.33	7.15	8.09	0.10	5.26	18.88	3.47	0.10						
10N/35W-9N 3 S	64	8.0	2231	228	125	159	3	0	390	834	174	4.0	1.0	0.76	21		
3- 5-64				11.38	10.28	6.91	0.08	6.39	17.36	4.91	0.06						
				40	36	24		22	60	17							
10N/35W-9N 4 S	64	7.7	4165	508	209	404	6	0	486	2186	220	4.4	1.1	0.80	24	3965	2129
2- 5-64				25.35	17.19	17.57	0.15	7.97	45.51	6.20	0.07						
				42	29	29		13	76	10							
10N/35W-14D 1 S	64	7.8	1420	181	66	100	4	0	289	529	85	30	0.2	0.19	25		
10-15-63				9.03	5.43	4.35	0.10	4.74	11.01	2.40	0.48						
				48	29	23	1	25	59	13	3						
10N/36W-1H 1 S	--	7.4	1550	239	38	99	4	0	248	597	112	8.2	0.2	0.26	24		
10-15-63				11.93	3.13	4.30	0.10	4.06	12.43	3.16	0.13						
				61	16	22	1	21	63	16	1						
5- 6-64	37		8000	97	134	105	3	0	254	604	116	10	0.2	0.22	25	1400	794
				4.84	11.02	4.57	0.08	4.16	12.58	3.27	0.16						
				24	54	22		21	62	16	1						

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Mineral constituents in parts per million equivalents per million percent reaction						Mineral constituents in parts per million								
			Specific conductance (micro-mhos at 25°C)	Calcium Co.	Magnesium M. g.	Sodium N.O.	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Sulfate S.O.2	T.D.S. Evap. 60°C Evap. 105°C	Total hardness as CaCO ₃ Computed
SANTA MARIA HYDRO SUBUNIT																	
10N/36W-2G 1 S	64	8.1	1270	1.35 6.74	59 4.85	90 3.91	3 0.08	0	238 3.90	467 25	69 1.72	5.1 1.95	0.2 0.08	0.30	25	1032	580
10N/36W-2G 1 S	64	8.1	1270	1.35 6.74	59 4.85	90 3.91	3 0.08	0	238 3.90	467 25	69 1.72	5.1 1.95	0.2 0.08	0.30	25	1032	580
10N/36W-2G 2 S	64	8.0	1800	2.06 10.28	74 6.09	94 4.09	3 0.13	0	378 6.20	296 6.16	291 8.21	3.2 0.05	0.22	24	1365	819	
10N/36W-2G 2 S	64	8.0	1800	2.06 10.28	74 6.09	94 4.09	3 0.13	0	378 6.20	296 6.16	291 8.21	3.2 0.05	0.22	24	1365	819	
10N/36W-12K 3 S	62	7.7	6748	6.12 30.54	34.7 28.54	900 39.13	7 0.18	0	471 7.72	3709 77.22	448 12.63	4.2 0.07	0.60	24	6838	2956	
10N/36W-14H 1 S	72	8.0	896	8.6 4.29	33 2.71	68 2.96	3 0.08	0	246 4.03	243 5.06	36 1.02	2.6 0.04	0.12	33	636	350	
11N/34W-4Q 1 S	65	7.9	1110	7.2 3.59	45 3.70	137 5.96	3 0.08	0	412 6.75	219 4.56	54 1.52	0.2 0.34	0.10	--	846	365	
11N/34W-7-17-64																754	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Mineral constituents in			parts per million equivalents per million percent reactivity value			Mineral constituents in parts per million			T1200 SANTA MARIA-CUYAMA HYDRO UNIT					
			Specific conductance (micro-mhos at 25°C)	Ca	Mg	Na	K	Carbonate	Sulfate	Chloride	Nitrate	Fuoride					
Date sampled						HCO ₃	SO ₄	Cl	NO ₃	B	SiO ₂	Total hardness CaCO ₃					
SANTA MARIA HYDRO SUBUNIT																	
11N/34W-5H 1 S 7-17-64	65	8.2	1120	109	57	66	1	0	423	159	81	0.4	0.05	--	748	507	
				5.44	4.69	2.87	0.03		6.93	3.31	2.28	0.24					
				42	36	22			54	26	18	2					
11N/34W-6F 1 S 7-17-64	65	8.0	1290	84	67	106	4	0	343	228	151	0	0.2	0.12	--	696	485
				4.19	5.51	4.61	0.10		5.62	4.75	4.26						
				29	38	32	1		38	32	29						
11N/34W-29P 2 S 10-14-63	64	7.8	1040	83	63	70	2	0	207	293	66	67	0.2	0.13	30	844	466
				4.14	5.18	3.04	0.05		3.39	6.10	1.86	1.08					
				33	42	24			27	49	15	9					
11N/35W-18M 1 S 10-14-63	--	8.2	1220	143	52	85	4	0	209	517	48	0	0.1	0.21	26	1034	571
				7.14	4.28	3.70	0.10		3.43	10.76	1.35						
				47	28	24	1		22	69	9						
5- 6-64	--	8.0	1290	83	101	88	4	0	242	538	50	0	0.2	0.16	29	978	623
				4.14	8.31	8.33	0.10		3.97	11.20	1.41						
				25	51	23	1		24	68	9						
11N/35W-19C 2 S 2- 6-64	61	7.4	2139	215	119	152	5	0	499	767	113	5.2	1.0	0.40	24	1738	1027
				10.73	9.79	6.61	0.13		8.18	15.97	3.19	0.08					
				39	36	24			30	58	12						
11N/35W-20K 3 S 2- 6-64	--	7.3	1165	122	42	74	4	0	300	221	124	3.2	0.7	0.12	26	832	477
				6.09	3.45	3.22	0.10		4.92	4.60	3.50	0.05					
				47	27	25	1		38	35	27						
11N/35W-21K 1 S 6-19-64	--	7.8	615	53	15	54	2	0	156	104	55	3	0.2	0.13	--	765	194
				2.64	1.23	2.35	0.05		2.56	2.17	1.55	0.05					
				42	20	37	1		40	34	24	1					

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Mineral constituents in parts per million equivalents per million percent reactivity						Mineral constituents in parts per million						
			Calcium C.O.	Magnesium Mg	Sodium Na	Potassium K	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	T.D.S. Total dissolved solids at 105°C Calculated	
SANTA MARIA HYDRO SUBUNIT T12AO															
11N/35W-28B 1 S 10-14-63	62	8.1	1020	127	38	3	0	218	370	37	8.6	0.19	24	840	
11N/35W-28F 2 S 2- 6-64	--	7.7	2663	6.34	3.13	2.74	0.08	3.57	7.70	1.04	0.14	1	26	778	
11N/35W-28L 1 S 10-14-63	62	8.02	990	137	30	221	8	0	527	1145	140	3.6	0.8	2372	
11N/35W-28R 1 S 7-17-64	62	7.9	1160	6.84	2.47	2.65	0.08	8.64	23.84	3.95	0.06	11	1321	2253	
11N/35W-23F 1 S 5- 6-64	61	7.9	1961	12.77	7.57	4.30	0.10	24	65	11	3.6	0.50	26	4666	
11N/36W-13R 1 S 10-14-63	--	7.6	1180	1.01	73	79	9	0	238	344	35	10	0.2	22	808
5- 6-64	--	7.9	940	5.04	6.00	3.43	0.23	4.02	9.60	1.18	0.16	1	27	--	1559
12N/35W-36R 1 S 7-17-64	62	7.6	940	6.0	2.99	3.7	4	0	495	628	101	10	0.27	31	1018
SANTA MARIA-CUYAMA HYDRO UNIT T1200															
11N/35W-28B 1 S 10-14-63	62	8.1	1020	127	38	3	0	218	370	37	8.6	0.19	24	840	
11N/35W-28F 2 S 2- 6-64	--	7.7	2663	6.34	3.13	2.74	0.08	3.57	7.70	1.04	0.14	1	26	778	
11N/35W-28L 1 S 10-14-63	62	8.02	990	137	30	221	8	0	527	1145	140	3.6	0.8	2372	
11N/35W-28R 1 S 7-17-64	62	7.9	1160	6.84	2.47	2.65	0.08	8.64	23.84	3.95	0.06	11	1321	2253	
11N/35W-23F 1 S 5- 6-64	61	7.9	1961	12.77	7.57	4.30	0.10	24	65	11	3.6	0.50	26	4666	
11N/36W-13R 1 S 10-14-63	--	7.6	1180	1.01	73	79	9	0	238	344	35	10	0.2	22	808
5- 6-64	--	7.9	940	5.04	6.00	3.43	0.23	4.02	9.60	1.18	0.16	1	27	--	1559
12N/35W-36R 1 S 7-17-64	62	7.6	940	6.0	2.99	3.04	3.1	0.10	4.18	9.72	1.21	0.01	1	27	1018

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in						Mineral constituents in					
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fujo	Boron	Silica
Date sampled				Mg	K	Na	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	B	F	Evap (BOC) S.O. 2	
CUYAMA VALLEY HYDRO SUBUNIT															
7N/24W-13C 2 S	--	7.0	2000	271	113	105	5	0	228	1095	17	0	0.8	0.23	--
9-28-64	9-28-64			13.52	5.29	4.57	0.13	17	3.74	22.80	0.48	2			1792
9N/24W-19F 1 S	61	7.5	1861	243	97	84	4	0	187	949	20	5.5	1.0	0.21	--
4-27-64				12.13	7.98	3.65	0.10	15	3.06	19.76	0.56	2			1719
9-28-64	--	7.6	1800	216	106	95	4	0	197	954	16	5	0.8	0.43	--
9N/24W-23M 1 S	70	7.9	832	19	6	158	3	0	217	120	83	5.6	0.8	0.38	1596
2-7-64				0.95	0.49	6.87	0.08	11	3.56	2.50	2.34	2	0.09		1006
10N/25W-20H 1 S	62	8.0	1793	230	96	74	4	0	178	909	17	4.2	1.1	0.20	--
4-27-64				11.48	7.90	3.22	0.10	35	2.92	18.93	0.48	2			1496
9-28-64	--	7.7	1610	256	88	80	4	0	178	957	15	4	0.6	0.19	--
10N/25W-21G 1 S	63	7.4	2577	368	152	112	5	0	276	1373	30	36	1.1	0.30	--
4-27-64				18.36	12.30	4.87	0.13	51	4.52	28.59	0.85	2			1423
9-28-64	--	7.7	2500	342	165	127	5	0	272	1445	27	42	0.6	0.25	--
				17.07	13.57	5.52	0.13	47	4.46	30.08	0.76	2			1544
									15	12	84				2213
															2288

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalent reactance value						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silicate	Total Evap. 80°C	Total Evap. 105°C
Date sampled				K	Mg	Na	K	CO ₃	HCO ₃	SO ₄	C ₁	NO ₃	F	B	SiO ₂	CaCO ₃	
CUYAMA VALLEY HYDRO SUBUNIT T12C0																	
10N/25W-22E 1 S 4-27-64	63	7.5	2224	14.72	1C.44	127	99	4	0.10	0	203	1167	30	32	1.1	0.24	--
	--	7.7	1900	1247	1C.50	125	94	5	0	190	1111	23	16	0.2	0.21	--	
9-28-64				12.33	10.28	4.09	0.13		3.11	25.13	0.65	2	1				1855
10N/25W-23E 1 S 4-27-64	66	7.8	2149	232	82	173	6	0	135	912	144	4.5	0.7	1.50	--		1894
	--			11.58	6.74	7.52	0.15		2.21	18.99	4.06	0.07					1131
				45	26	29	1	9	9	75	16.						
9-28-64	--	7.6	2100	2226	78	190	6	0	138	932	162	4	0.2	1.13	--		1715
				11.28	6.41	8.26	0.15		2.26	19.40	4.57	0.06					1749
10N/25W-24E 1 S 2-7-64	70	7.6	5211	306	149	712	7	0	193	1079	1171	34	2.8	6.90	19		1622
	--			15.27	12.25	30.96	0.18		3.16	22.46	33.02	0.55					1667
10N/25W-30F 2 S 4-27-64	69	7.9	1782	214	103	73	4	0	166	890	16	14	0.9	0.19	--		1667
	--			10.68	8.47	3.17	0.10		2.72	18.53	0.45	0.23					1377
9-28-64	--	7.8	1750	214	112	80	4	0	182	920	21	17	0.6	0.22	--		3582
				10.68	9.21	3.48	0.10		2.38	19.15	0.59	0.27					995
10N/25W-32H 1 S 4-27-64	62	8.1	1779	227	94	72	4	0	181	854	35	1.0	0.17	--			1458
				11.33	7.73	3.13	0.10		2.97	17.78	0.71	0.56					1520
				51	35	14	1	13	81	13	3						954
																	1401

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Chloride	Sulfate	Bicarbonate	Carbon dioxide	Nitrate	Boron	TDS	Total hardness as CaCO ₃		
Date sampled				Na	K	CO ₃	HCO ₃	SO ₄	Cl	F	B	Evap 180°C	Evap 105°C	Computed			
CUYAMA VALLEY HYDRO SUBUNIT																	
10N/25W-32H 1 S 9-28-64	--	7.6	1750	211	96	81	4	0	185	867	21	31	0.6	0.13	--	144.2	922
			10.53	7.90	3.52	0.10	3.03	18.05	0.59	0.50	2					140.3	
			48	36	16	14	14	81	3								
10N/26W-4R 1 S 4-27-64	73	7.7	2055	203	85	179	5	0	117	1012	46	1.5	0.7	1.08	--	175.2	857
			10.13	6.99	7.78	0.13	1.92	21.07	1.30	3.02	5					159.1	
			40	28	31	1	8	87									
--	7.7	1850	203	105	108	4	0	185	951	34	4	0.6	0.45	--	161.0	939	
			10.13	8.64	4.70	0.10	3.03	19.80	0.96	0.06							
			43	37	20	13	13	83	4								
9-28-64																	
10N/26W-9R 3 S 4-27-64	67	7.9	1966	265	94	93	4	0	162	1009	25	9	0.8	0.18	--	175.3	1048
			13.22	7.73	4.04	0.10	2.66	21.01	0.71	0.15	3	1					
			53	31	16	11	11	86									
--	7.6	1900	256	101	100	4	0	184	1042	21	9	0.2	0.18	--	179.6	1055	
			12.77	8.31	4.35	0.10	3.02	21.69	0.59	0.15	1					162.4	
			50	33	17	12	12	85	2								
9-28-64																	
10N/26W-14C 1 S 4-27-64	70	7.5	1970	260	100	85	4	0	171	991	21	4	1.2	0.21	--	167.1	1060
			12.97	8.22	3.70	0.10	2.80	20.63	0.59	0.06						155.0	
			52	33	15	12	12	86									
--	7.9	1850	246	103	100	5	0	156	1028	21	0	0.6	0.23	--	168.6	1038	
			12.28	6.47	4.35	0.13	2.56	21.40	0.55	0.2						158.1	
9-28-64																	
10N/26W-14C 4 S 4-27-64	64	8.0	2019	275	102	78	4	0	181	1035	26	9.2	1.1	0.18	--	177.1	1106
			13.72	8.39	3.39	0.10	2.97	21.55	0.73	0.15	3	1					
			54	33	13	12	12	85								161.9	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reacitance value						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	TDS	Total hardness
Date sampled				M g	M g	N a	K	C O ₃	H C O ₃	S O ₄	C l	F	B	S O ₂	Evd 105°C Cumulated	C o C O ₃	
CUYAMA VALLEY HYDRO SUBUNIT T12C0																	
10N/26W-14C 4 S 9-28-64	--	7.8	1900	279	108	84	4	0	172	1096	28	10	0.8	0.18	--	1850	1141
				13.92	8.88	3.65	0.10		2.82	22.82	0.79	0.16					
				52	33	14		11		86	3						1694
10N/26W-22A 1 S 2-7-64	64	7.7	5163	518	333	501	7	0	173	2957	362	22	1.0	0.20	24	5205	2664
				25.85	27.39	21.78	0.18		2.84	61.56	10.21	0.35					
				34	36	29		4		82	14						4810
10N/26W-23P 1 S 4-27-64	69	8.0	2062	278	106	93	6	0	156	1075	39	9.3	0.6	0.24	--	1877	1130
				13.87	8.72	4.04	0.15		2.56	22.38	1.10	0.15					
				52	33	15	1			85	4						1684
10N/27W-11C 1 S 9-28-64	--	7.6	4400	585	311	415	8	0	480	2954	110	7	0.1	0.38	--	5218	2741
				29.19	25.58	18.04	0.20		7.87	61.50	3.10	0.11					
				40	35	25				85	4						4626

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity						Mineral constituents in parts per million							
				Ca	Mg	Na	K	Potassium	Sodium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfur
Date sampled																	TDS
SAN ANTONIO HYDRO UNIT																	
T1300																	
7N/32W-1B 1 S 10-15-63	64	7.9	590	5.9 2.94 4.6	1.48 1.91 2.3	4.4 0.05 30	0 1 1	0 3.51 56	0 0.17 36	8 2.26 36	19 0.31 5	0.1	0.14	34	374	221	
5- 7-64	65	7.9	570	3.8 1.90 3.0	2.47 1.83 4.0	4.2 0.05 29	0 1 1	0 3.23 53	0 0.27 4	13 2.26 37	80 0.34 6	0.1	0.09	35	369	219	
8N/34W-16G 1 S 5- 7-64	--	8.1	770	6.8 3.39 4.0	2.1 1.73 20	7.7 3.35 39	3 0.08 1	0 3.77 44	0 3.73 32	131 2.24	73 0	0 0.2	0.16	39	358	256	
8N/34W-23B 3 S 5- 7-64	66	7.8	1160	4.7 2.35 1.8	6.2 5.10 39	1.28 0.10 42	4 0.10 1	0 3.80 30	0 2.75 21	132 2.14 47	214 0.23 2	0 0.2	0.20	33	866	373	
																	748

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micromhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million							
				Calcium Mg	Magnesium Ca	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silicon SiO ₂	Total hardness as CaCO ₃	
LOMPOC HYDRO SUBUNIT																	
6N/34W-5H 5 S 11- 6-63	--	7.8	1510	216	41	88	2	0	439	274	145	78	0.1	0.24	30	1074	708
	--	8.2	1581	10.8	3.37	3.83	0.05	7.20	5.70	4.09	1.26	7				1090	
	--	8.2	1581	60	19	21		39	31	22						1110	690
5-19-64				146	7.29	7.50	4.09	0.05	0	422	273	152	46	0.4	0.21	--	
				41	4.1	36	23		39	32	24	4				1000	
9-30-64				125	83	107	3	--	422	290	157	41	0.1	0.20	--	1116	654
				6.24	6.83	4.65	0.08		6.92	6.04	4.43	0.66	25	4			
7N/33W-30B 1 S 10-14-63	6.6	1280	64	30	170	5	0	59	32	392	21	0.1	0.07	44	890	283	
				3.19	2.47	7.39	0.13	0.97	0.67	11.05	0.34	3					
				24	19	56	1	7	5	85	3						
5-15-64	6.5	1469	56	36	162	5	0	51	33	388	22	0.5	0.14	--	1050	288	
				2.79	2.96	7.04	0.13	0.84	0.69	10.94	0.35	3					
9-29-64				61	34	175	6	--	67	34	401	22	0.1	0.17	--	804	292
				3.04	2.80	7.61	0.15	1.10	0.71	11.31	0.35	3					
7N/34W-12E 1 S 1- 3-64	6.9	981	104	17	80	3	0	315	79	120	1.0	0.3	0.14	62	608	330	
				5.19	1.40	3.48	0.08	5.16	1.64	3.38	0.02						
7N/34W-19J 1 S 9-30-64	--	7.9	1390	196	44	100	6	0	369	223	169	3	0.1	0.29	--	1060	671
				9.78	3.62	4.35	0.15	6.05	6.72	4.77	0.05	27					
				55	20	24	1	34	38								

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents						Mineral constituents in parts per million								
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	TDS	Elev 80°C	Elev 105°C
Date sampled	Sampled in °F	Ca	Mg	Na	K	CO ₂	HCO ₃	SO ₄	Cl	F	B	SiO ₂	50.2	Computed	CaCO ₃			
LOMPOC HYDRO SUBUNIT																		
7N/34W-19J 3 S 11- 6-63	6.8	7.6	1460	170 8.48	4.4 3.62	114 4.96	0.15 0.29	0	349 5.72	331 6.89	168 4.74	5.8 0.09	0.2 0.27	36	1086	605		
5-18-64	6.7	7.9	1500	158 7.88	61 5.02	119 5.17	6 0.15	0	354 5.80	362 7.54	173 4.88	4.4 0.2	0.40 0.07	33	1047			
9-30-64	--	7.6	1400	134 6.69	4.6 3.78	113 4.91	5 0.13	0	325 5.33	252 5.25	183 5.6	4.1 0.07	0.1 0.27	--	1158	646		
7N/34W-19L 2 S 11- 6-63	6.8	7.9	2000	173 8.63	55 4.52	162 7.04	6 0.15	0	406 6.65	340 7.08	233 6.57	2.3 0.04	0.1 0.38	37	1091	1030	524	
5-18-64	--	7.5	1876	194 9.68	53 4.36	158 6.87	7 0.18	0	437 7.16	321 6.68	245 6.91	2.5 0.04	0.3 0.39	--	897			
9-30-64	--	7.8	2250	198 9.88	103 8.47	197 8.57	7 0.18	--	527 8.64	467 9.72	307 8.66	0 0.1	0.44 0.44	--	1312	703		
7N/34W-20K 5 S 9-30-64	--	7.7	1120	113 5.64	30 2.47	82 3.57	4 0.10	0	256 4.20	207 4.31	121 3.41	0 0.1	0.20 0.20	--	1196			
7N/34W-20L 1 S 5-18-64	7.0	8.0	1300	56 2.79	97 7.98	97 4.22	4 0.10	0	335 5.49	261 5.23	168 4.74	0 0.2	0.30 0.30	37	1024	539		
				18 53		28 18				36 34					875			
SANTA YNEZ HYDRO UNIT																		
T14AO																		
T1400																		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reactivity				Mineral constituents in parts per million					
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfur	TdS Evap 10°C hardness Ca Evap 10°C Compound Caco ₃	
Date sampled																	
LOMPOC HYDRO SUBUNIT																	
T14AO																	
7N/34W-20L 1 S 9-30-64	--	7.9	1220	117	6.3	94	5	0	334	247	169	0.0	0.1	0.24	--	928	551
7N/34W-20M 2 S 11-6-63	7.0	8.0	1340	5.84	5.18	4.09	0.13	5.47	5.14	4.77	31	0	0	0	--	860	419
9-29-64	--	8.1	1320	102	3.29	138	0.7	0	262	186	216	4.3	0.07	0.45	35	916	858
7N/34W-20N 2 S 2-4-64	6.5	7.4	3843	4.09	3.5	4.0	0.18	4.29	3.97	2.7	4.3	0	0	0	--	954	452
7N/34W-20N 3 S 12-6-63	--	8.0	640	11.84	11.84	20.83	0.18	0	311	179	231	5	0.01	0.36	--	872	
7N/34W-20N 3 S 2-4-64	6.4	7.5	2282	14.4	14.4	4.79	0.7	0	724	1108	480	6.4	0.6	0.80	29	3089	1392
7N/34W-22D 3 S 10-14-63	--	8.0	1214	11.83	8.96	5.39	0.10	11.87	23.07	24	4.7	13.54	0.10	0	--	2931	
7N/34W-26H 3 S 2-3-64	6.4	7.0	2040	4.8	1.40	2.46	0.08	0	166	6.9	6.7	0	0.01	0.15	33	400	190
7N/34W-26Q 3 S 10-14-63	6.5	8.0	2040	10.88	9.79	5.30	0.13	1.44	1.44	1.44	31	1.89	0	0.40	17	1815	1040
																1470	
																572	
																1662	1034
																1576	

TABLE E-I
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reacidence value						Mineral constituents in parts per million							
				Ca	Mg	Na	K	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica
LOMPOC HYDRO SUBUNIT																	
7N/34W-26Q 3 S 5-15-64	62	7.4	2080	203	10.13	8.96	4.78	0.13	5	0	399	563	215	3	0.07	0.60	--
9-29-64	--	7.8	1950	246	81	117	4	0	4.10	577	206	25	0.05	0.05	0.01	0.48	--
7N/34W-28A 3 S 10-14-63	--	8.2	1490	151	68	103	4	0.10	6.72	12.01	5.81	24	3	0.05	0.01	0.48	1436
5-18-64	--	7.3	1570	153	5.59	4.48	4.48	0.10	0	4.28	315	155	0.8	0.01	0.44	3.7	1116
9-29-64	--	8.2	1340	144	70	106	4	0.10	7.01	6.06	4.37	24	4.37	0.01	0.44	3.7	1045
7N/34W-28G 1 S 11- 6-63	64	8.0	1990	168	108	170	6	0	4.26	288	165	1.0	0.02	0.02	0.33	--	1091
5-18-64	--	8.2	2179	211	105	171	6	0.15	6.98	6.00	4.65	26	1.0	0.02	0.33	--	987
9-29-64	--	7.4	1950	95	8.64	7.44	0.15	0.15	0	376	6.96	155	1.8	0.01	1.02	3.2	1680
				91	39	32	28	1	7.39	0.15	6.16	14.49	4.37	0.03	0.03	0.36	--
				9.53	37	30	32	1	8.88	0.15	30	58	17	2	0.03	0.36	--
				9.53	37	30	32	1	8.88	0.15	30	58	17	2	0.03	0.36	--
SANTA YNEZ HYDRO UNIT																	
T1440																	
7N/34W-26Q 3 S 5-15-64	62	7.4	2080	203	10.13	8.96	4.78	0.13	5	0	399	563	215	3	0.07	0.60	--
9-29-64	--	7.8	1950	246	81	117	4	0	4.10	577	206	25	0.05	0.05	0.01	0.48	--
7N/34W-28A 3 S 10-14-63	--	8.2	1490	151	68	103	4	0.10	6.72	12.01	5.81	24	3	0.05	0.01	0.48	1436
5-18-64	--	7.3	1570	153	5.59	4.48	4.48	0.10	0	4.28	315	155	0.8	0.01	0.44	3.7	1116
9-29-64	--	8.2	1340	144	70	106	4	0.10	7.01	6.06	4.37	24	4.37	0.01	0.44	3.7	1045
7N/34W-28G 1 S 11- 6-63	64	8.0	1990	168	108	170	6	0	4.26	288	165	1.0	0.02	0.02	0.33	--	1091
5-18-64	--	8.2	2179	211	105	171	6	0.15	6.98	6.00	4.65	26	1.0	0.02	0.33	--	987
9-29-64	--	7.4	1950	95	8.64	7.44	0.15	0.15	0	376	6.96	155	1.8	0.01	1.02	3.2	1680
				91	39	32	28	1	8.88	0.15	30	58	17	2	0.03	0.36	--
				9.53	37	30	32	1	8.88	0.15	30	58	17	2	0.03	0.36	--
				9.53	37	30	32	1	8.88	0.15	30	58	17	2	0.03	0.36	--

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity				Mineral constituents in parts per million									
				Calcium CO ₃	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Total hardness as CaCO ₃				
LOMPOC HYDRO SUBUNIT																	
7N/34W-28G 2 S	66	7.4	2120	167	126	193	6	0	439	742	163	2.7	1.10	31	1762	935	
10-15-63	--	--	8.33	10.36	8.39	0.15	7.20	26	15.45	4.60	0.04	0.04	0	--	1648	1648	
31			31	38	31	1	57				17						
6-15-64	7.9	2000	139	113	202	7	0	329	700	168	0	0.1	0	--	1618	812	
28			9.29	8.78	0.18	5.39	14.57	22	4.74	1.19							
7N/34W-29E 6 S	63	7.8	3299	277	211	281	8	0	831	874	407	4.4	0.7	1.24	33	2756	1560
2-3-64			13.82	17.35	12.22	0.20	13.62	18.20	11.48	0.07							
7N/34W-30A 4 S	66	7.8	1750	180	79	103	5	0	465	379	174	1.8	0.2	0.50	28	1268	775
11-6-63			8.98	6.50	4.48	0.13	7.62	7.89	4.91	0.03							
45			32	32	22	1	37	39	24								
7N/34W-30L 7 S	65	7.8	2198	198	139	157	6	0	563	672	176	4.4	0.5	0.84	25	1793	1066
2-4-64			9.88	11.43	6.83	0.15	9.23	13.99	4.96	0.07							
35			40	40	24	1	33	50	18								
7N/34W-31A 1 S	61	7.4	2632	297	153	130	6	0	555	852	228	0.0	0.6	0.71	--	2191	1371
5-18-64			14.82	12.58	5.65	0.15	9.10	17.74	6.43								
45			38	17	27		27	53	19								
9-29-64	--	8.0	2400	272	148	128	6	0	559	805	211	0.0	0.1	0.52	--	2056	1288
			13.57	12.17	5.57	0.15	9.16	16.76	5.95								
43			39	18	18		29	53	19								
7N/34W-31C 2 S	63	8.1	1525	123	96	98	2	0	488	350	121	0	0.1	0.28	33	1108	703
11-6-63			6.14	7.90	4.26	0.05	8.00	7.29	3.41	0.39	18						
			33	43	23												

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1953/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reaction value				Mineral constituents in parts per million					
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fu-fide	Boron	Silica	Total hardness	
Date sampled				W	g	K	Na	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	S	O ₂	
LOMPOC HYDRO SUBUNIT																	
7N/34W-31C 2 S 5-15-64	62	7.9	1623	162	8.08	7.24	3.74	.86	2	0	551	310	125	0	0.23	--	
				4.2	4.2	3.8	2.0	0.05	4.8	34	9.03	6.45	3.53	19		114.8	
	--	8.0	1550	165	97	97	88	2	0	573	349	126	0.0	0.01	0.24	--	
				8.23	7.98	7.40	3.83	0.05	46	39	7.39	7.27	3.55	18		104.5	
				4.1	4.0	19	1.9			36						123.0	
																811	
9-29-64	--																
7N/34W-33P 1 S 5-20-64	--	7.6	1900	111	166	118	3	0	0	552	463	183	7.8	0.02	0.62	32	
				5.54	13.65	5.13	0.08			9.05	9.64	5.16	0.13				110.9
				23	56	21	3.8			38	40	22	1				156.0
																	960
7N/34W-35F 1 S 5-18-64	65	7.5	1739	182	87	105	4	0	0	462	432	140	0.5	0.04	0.49	--	
				9.08	7.15	4.57	0.10			7.57	8.99	3.95	0.01				127.0
				4.3	3.4	22	3.7			37	44	19					812
7N/34W-35F 2 S 9-30-64	--	8.0	1700	175	99	125	5	0	364	509	195	0.0	0.01	0.41	--		
				8.73	8.14	5.44	0.13			5.97	10.60	5.50	25				117.8
				39	36	24	1			27	48						
7N/34W-35H 1 S 5-26-64	--	8.0	2700	160	85	465	11	0	591	283	688	2.5	0.02	1.52	30		
				1.64	92	430	12			569	327	649	1.5	0.01	1.14	--	
				8.18	7.57	18.70	0.31			9.33	6.81	18.30	0.24	1			2011.7
				24	22	54	1			27	20	53					
8-12-64	--	7.8	2700	152	83	440	13	0	559	289	635	1.7	0.01	1.12	--		
				7.58	6.83	19.13	0.33			9.16	6.02	17.91	0.27	1			1904
				22	20	56	1			27	18						1932
																	721
9-79-64	--																1905

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per cent reactance value				Mineral constituents in parts per million									
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	TDS	Total hardness
Date sampled				Na	Mg	K	HCO ₃	CO ₃	SO ₄	Cl	F	Si-O ₂			Evap 10°C	Evap 10°C Compacted CaCO ₃	
LOMPOC HYDRO SUBUNIT																	
T14AO																	
7N/35W-17M 1 S 7-11-64	--	7.3	3200	156	29	620	0.74	0	330	39	1117	0	0.1	0.71	--	2002	508
7N/35W-18H 2 S 7-15-64	--	7.2	16000	18.71	2.38	26.96	0.71	14	5.41	0.81	31.50	84	0.1	1.68	--	2153	2521
7N/35W-18J 1 S 10-15-63	--	8.4	5200	98	385	3650	110	0	652	825	6330	0	0.1	1.68	--	206	11997
5-19-64	--	8.4	5420	57	92	989	34	43	417	80	178.51	86	0.1	1.12	28	3114	607
9-29-64	--	8.3	4600	2.4	7.57	4.300	0.87	1.43	6.83	1.67	43.99	0.19	0.5	1.02	--	3060	521
7N/35W-18J 2 S 12-13-63	60	6.8	32680	683	1063	6000	246	0	939	2017	11540	6.8	0.1	0.76	--	3074	3371
7N/35W-21L 4 S 9-30-64	--	8.0	2850	34.08	87.42	260.88	6.29	2	15.39	4.199	325.43	0.11	0.1	0.76	--	2956	495
7N/35W-22J 1 S 9-25-64	--	7.8	2750	317	152	185	10	0	537	812	401	5	0.1	0.38	--	2420	1417
				15.82	12.50	8.04	0.26	22	8.80	16.91	11.31	0.08	0.1	0.38	--	2146	2146

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfate	TDS	Total hardness
Date sampled				M g	M g	N a	K	C O ₂	H C O ₃	S O ₄	C l	N O ₃	F	B	S O ₂	Evap 105°C Computed	C O ₂
LOMPOC HYDRO SUBUNIT																	
7N/35W-22M 1 S 11-6-63	63	8.1	1620	123 6•14	45 3•70	187 8•13	517 13•22	0	266 4•36	178 3•71	355 10•01	0	0•1	0•24	26	1084	492
				20	12	26	42		24	21	55					1562	
5-19-64	63	8.3	1752	128 6•39	47 3•87	164 7•13	6 0•15	0	266 4•36	153 3•19	351 9•90	0	0•2	0•10	--	1100	513
				36	22	41	1		25	18	57					980	
9-29-64	--	7.8	1650	144 7•19	47 3•87	195 8•48	7 0•18	0	288 4•72	185 3•85	384 10•83	0•0	0•1	0•43	--	1182	553
				36	20	43	1		24	20	56					1104	
7N/35W-23E 2 S 10-15-63	65	8.0	1990	121 6•04	90 7•40	237 10•30	8 0•20	0	306 5•02	476 9•91	332 9•36	2•2 0•04	0•1	0•65	32	1534	673
				25	31	43	1		21	41	38					1449	
5-18-64	64	7.4	2538	201 10•03	97 7•98	246 10•70	9 0•23	0	525 8•60	481 10•01	350 9•87	3•0 0•05	0•3	0•53	--	1767	901
				35	28	37	1		30	35	35					1646	
9-29-64	--	8.0	2100	168 8•38	95 7•81	255 11•09	9 0•23	0	380 6•23	500 10•41	369 10•41	4 0•06	0•2	0•50	--	1634	810
				30	28	40	1		23	38	38					1588	
7N/35W-24K 2 S 8-12-64	--	7.9	2450	247 12•33	75 6•17	275 11•96	12 0•31	0	490 8•03	448 9•33	486 13•71	8 0•13	0•1	0•62	--	1874	926
				40	20	39	1		26	30	44					1793	
9-29-64	--	8.0	2300	183 9•13	89 7•32	280 12•17	11 0•28	0	367 6•02	461 9•60	462 13•03	8 0•13	0•1	0•81	--	1846	H23
				32	25	42	1		21	33	45					1675	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per percent reaction value				Mineral constituents in parts per million				Tl400	
				Ca	Mg	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	
Date sampled				CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂		
LOMPOC HYDRO SUBUNIT													
7N/35W-25D 1 S	65	7.6	2600	16.52	11.02	9.13	0.23	210	9.13	9.16	301	0	0.77
5-18-64				45	30	25	1	25	52	19.07	8.49	23	32
9-29-64	--	7.9	2350	12.49	14.1	1.78	1.0	0	400	8.56	293	6	0.55
7N/35W-25F 7 S	65	7.9	2020	12.43	11.60	7.74	0.26	24	1	17.55	8.26	0.10	--
2-4-64				39	36	24	1	20	54	20	25		1982
7N/35W-26F 4 S	64	7.6	2775	10.63	9.70	5.57	0.08	213	1.18	6.19	51.9	171	1.017
10-15-63				41	37	21	0.08	10.63	9.70	10.15	10.81	4.82	31
5-15-64	--	7.8	2682	12.03	12.99	6.13	0.15	241	1.58	14.1	378	6.77	0.7
9-29-64				38	42	20	0.15	12.03	13.32	6.52	6.01	20	0.19
7N/35W-27F 1 S	64	7.5	1110	6.8	30	1.10	0.18	277	14.3	15.7	6.17	69.7	0.1
12-13-63				3.39	2.47	4.78	0.18	13.82	11.76	6.83	6.83	14.51	--
7N/35W-27P 1 S	66	7.2	910	5.0	35	7.1	0.23	50	2.50	2.88	7.09	1.46	0.06
12-12-63				29	33	36	0.23	12.13	6.31	2.3	2.3	2.1	1803

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity					Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Total hardness Evap 18°C Evap 10°C Computed COCO ₃
Date sampled				Mg M g	No	K		HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂		
LOMPOC HYDRO SUBUNIT																
7N/35W-28K 2 S	64	7.3	1168	5.3	2.64	1.64	0.13	158	5	0	168	252	0.0	0.15	3.7	6668
12-12-63				23	15	6.1	1	2.75	1.35	12	63	7.11	0.0	0.12	2.1	673
7N/35W-28R 1 S	62	7.5	464	15	0.75	0.99	1.2	66	6	0	168	71	1.0	0.02	0.02	249
12-11-63				16	21	2.87	0.15	2.75	5.8	3	2.00	4.2	0.0	0.12	21	87
7N/35W-30G 1 S	64	7.6	2392	10	0.50	1.32	1.6	494	32	0	517	1	51.8	0.2	1.60	4.5
12-12-63				2	5	21.48	0.82	8.47	0.02	14.61	36	14.61	26	0.42	1.60	4.5
7N/35W-31J 1 S	66	6.9	945	32	1.60	1.89	0.18	114	7	0	46	238	0.5	0.3	0.04	13
12-11-63				19	22	4.96	0.18	0.75	1.00	2	1.00	6.71	0.01	0.04	13	511
7N/35W-33J 1 S	62	6.9	725	30	1.50	2.06	0.08	25	75	0	84	40	15.4	0.3	0.06	4.4
12-11-63				22	30	3.26	0.08	1.38	0.83	1	2.0	12	4.34	0.24	0.04	4.4
7N/35W-33J 2 S	--	8.1	1080	93	4.64	2.38	0.17	96	4	0	173	104	22.6	0	0.02	0.16
11-6-63				41	21	0.10	0.10	2.84	2.17	1	25	19	6.37	0.17	0	0.16
5-19-64	66	7.9	1265	111	5.54	3.04	0.08	37	82	0	188	107	24.9	0.5	0.3	0.04
				45	25	3.57	0.08	2.29	1	1	3.08	2.23	7.02	0.01	0.04	--
9-30-64	--	8.0	1150	93	4.64	3.04	0.10	97	4	--	182	108	24.0	0	0.01	0.15
				39	25	4.22	0.10	2.98	1	25	2.25	19	6.77	0.19	0.01	--
												56	56			669

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled	pH	Specific conductance (micromhos at 25°C)	Mineral constituents				parts per million equivalents per million percent reaction value				Mineral constituents in parts per million							
				CaCO ₃	MgCO ₃	Na ₂ CO ₃	K ₂ CO ₃	Ca	Mg	Na	K	Carbonate	Bicarbonate	Sulfate	Nitrate	Fluoride	Boron	Silicate	
Date sampled	Total hardness	Expt 105°C	Expt 105°C	Expt 105°C	Expt 105°C	Expt 105°C	Computed	SiO ₂	B	F	Cl	NO ₃	B	SiO ₂	CalCO ₃				
LOMPOC HYDRO SUBUNIT																			
7N/35W-33J 3 S 11- 6-63	—	7.8	116.0	9.9	4.94	4.19	3.52	0.13	5	0	2.22	14.7	22.1	0	0.2	0.13	3.3	800	457
—	8.2	116.0	116.0	11.6	4.6	8.6	6	0	3.64	2.8	3.06	6.23	4.8	2	0.1	0.14	—	746	479
9-30-64	—	8.2	116.0	5.79	3.78	3.74	0.15	0	3.84	2.8	3.12	6.60	4.9	0.03	—	—	—	858	479
7N/35W-33R 1 S 12-11-63	6.0	7.8	119.0	5.0	6.2	10.1	7	0	2.15	1.32	2.03	0.5	0.2	0.10	3.5	733	380		
7N/35W-35D 1 S 12-12-63	6.4	6.7	110.1	4.7	4.2	9.3	7	0	9.4	4	2.70	3.7	0.2	0.05	1.4	604	290		
7N/35W-36J 3 S 2- 5-64	6.2	7.7	238.0	32.8	4.0	20.3	3	0	4.92	5.62	31 /	6.4	0.6	0.36	1.9	1896	984		
7N/35W-36P 1 S 11- 6-63	—	8.3	144.0	9.4	4.69	5.51	6.65	0.08	0.10	4.90	11.70	8.94	0.10	—	—	—	1721	510	
—	8.1	162.6	105	4.2	1.59	5	0	2.11	1.66	3.17	0	0.4	0.11	—	—	—	1031	435	
5-19-64	—	8.1	162.6	5.24	3.45	6.91	0.13	2.2	4.4	3.46	3.46	8.94	5.6	—	—	—	898	898	

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per cent reaction						Mineral constituents in parts per million parts per million					
			Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfur dioxide	T.D.S.
Date sampled	pH	Mg	Na	K	CO ₂	HCO ₃	SO ₄	Cl	NO ₃	B	SO ₂	Total hardness	Expt 105°C Expt 100°C Computed	
SANTA RITA HYDRO SUBUNIT														
6N/32W-18H 1 S 10-14-63	64	7.8	2550	319	163	155	0	567	965	248	1.2	1.0	0.86	25
6N/33W-11M 1 S 5-15-64	59	7.5	2199	10.92	13.41	6.74	0.08	9.29	20.09	6.99	0.19	1		234.2
				44	37	19		25	55	19				1468
														2171
SANTA YNEZ HYDRO UNIT														
T14B0														
6N/32W-18H 1 S 10-14-63	64	7.8	2550	319	163	155	0	567	965	248	1.2	1.0	0.86	25
6N/33W-11M 1 S 5-15-64	59	7.5	2199	10.93	11.43	11.2	0.13	0	43.7	718	167	2.5	0.7	2171
				40	42	18		7.16	14.95	4.71	0.71	0.04		1119
														1718
														1578
T1400														

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reaction value				Mineral constituents in parts per million									
				Magnesium	Sodium	Potassium	Chloride	Boron	Sulfur dioxide	Nitrate	Fuoride	TDS	Total hardness as Evap 160°C	Evap 105°C	Sulfate	Carbon dioxide	Chloride	NO ₃	B	SO ₂	CO ₂
6N/31W-17L 1 S 10-14-63	64	8.2	1220	4.34	87	112	62	3	0	437	351	67	12	0.2	0.35	26	1032	678			
				9.21	27	9.21	2.70	0.08	7.16	7.31	1.89	0.19									
				56		56	17		4.3	4.4	11	1									
6- 3-64	64	7.3	1309	6.44	129	75	63	3	0	434	309	63	10	0.5	0.26	--	1013	935			
				4.2	6.17	6.17	2.74	0.08	7.11	6.43	1.78	0.16									
				40		18	1		4.6	4.2	11	1									
7N/31W-31D 1 S 6- 3-64	66	7.4	507	1.50	30	27	28	1	0	198	10	4.9	20	0.1	0.03	--	290	186			
				30	2.22	1.22	0.03	1	3.25	0.21	1.38	0.32									
				45		25	1		63	4	27	6									
SANTA YNEZ HYDRO UNIT																					
T14C0																					
BUELLTON HYDRO SUBUNIT																					

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reacitance value						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Total hardness °Eab (50°C)	
Date sampled				CO ₃	Na	K	CO ₃	HCO ₃	SO ₄	Cl	F	B	SiO ₂	CO ₃	CO ₃		
SANTA YNEZ HYDRO SUBUNIT																	
6N/29W- 7L 2 S 5-18-64	68	8.4	557	58	2.89	0.91	1	12	288	4	32	0.2	0.05	--	300	264	
6N/29W- 8P 1 S 5-18-64	72	8.2	650	64	3.19	0.21	1	0	472	0.08	0.90	0.05	0.1	--	302	302	
6N/29W- 9J 1 S 10-21-63	--	8.1	900	66	3.29	4.19	68	0.08	389	3	30	0.2	0.02	--	354	320	
5-18-64	69	7.9	989	66	3.29	4.61	64	0.08	386	78	79	0.1	0.20	30	560	374	
6N/29W-17A 1 S 5-18-64	66	7.6	668	71	3.54	3.04	77	1	633	1.62	2.33	0.12	0.17	--	572	572	
6N/29W-17B 1 S 10-21-63	--	8.2	610	72	3.59	2.88	87	0.03	605	61	22	1	0.06	0.15	--	563	395
6N/29W-18G 1 S 5-18-64	--	7.3	2284	128	6.39	8.22	11.52	0.54	525	709	86	0.8	0.02	29	388	324	
6N/30W- 10 1 S 6- 1-64	68	8.1	1088	54	2.69	8.14	48	1	600	62	56	0.3	0.24	--	1646	731	
								0.03	9.83	1.29	1.58	0.05	1.10	77	604	542	
															635	542	
															619	542	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per milliliter reactivity value								Mineral constituents in parts per million			
				Calcium	Magnesium	Sodium	Potassium	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	TDS Evap 180°C
SANTA YNEZ HYDRO SUBUNIT															
6N/30W-2N 1 S 5-18-64	61	7.9	912	38	32	122	4	0	4.34	4.8	0.6	0.1	0.20	--	521
6N/30W-7C 4 S 10-14-63	66	8.4	600	1.09	2.63	5.30	0.10	7.11	1.00	1.80	0.01	--	522	227	
6- 1-64	69	7.8	654	32	50	23	1	10	250	16	5.8	0.1	0.02	4.0	380
6N/30W-12E 1 S 5-18-64	--	7.9	662	1.06	4.11	1.00	0.03	0.33	4.10	0.33	1.97	0.09	--	371	286
6N/34W-12C 4 S 7-21-64	--	7.4	2700	349	147	185	10	0	270	12	7.0	0.1	0.07	--	378
7N/29W-29R 2 S 6- 1-64	66	7.5	873	57	74	27	1	0	4.43	0.25	1.97	0.16	--	329	
7N/30W-16H 1 S 6- 3-64	68	7.7	852	2.84	6.09	1.17	0.03	8.20	1.02	0.82	0.05	0.1	0.49	--	376
7N/30W-24Q 1 S 6- 1-64	71	7.5	1214	28	60	12	12	81	10	8	--	4.71	447		
T1400															
SANTA YNEZ HYDRO UNIT															
6N/30W-2N 1 S 5-18-64	61	7.9	912	38	32	122	4	0	4.34	4.8	0.6	0.1	0.20	--	521
6N/30W-7C 4 S 10-14-63	66	8.4	600	1.09	2.63	5.30	0.10	7.11	1.00	1.80	0.01	--	522	227	
6- 1-64	69	7.8	654	32	50	23	1	10	250	16	5.8	0.1	0.02	4.0	380
6N/30W-12E 1 S 5-18-64	--	7.9	662	1.06	4.11	1.00	0.03	0.33	4.10	0.33	1.97	0.09	--	371	286
6N/34W-12C 4 S 7-21-64	--	7.4	2700	349	147	185	10	0	270	12	7.0	0.1	0.07	--	378
7N/29W-29R 2 S 6- 1-64	66	7.5	873	57	74	27	1	0	4.43	0.25	1.97	0.16	--	329	
7N/30W-16H 1 S 6- 3-64	68	7.7	852	2.84	6.09	1.17	0.03	8.20	1.02	0.82	0.05	0.1	0.49	--	376
7N/30W-24Q 1 S 6- 1-64	71	7.5	1214	28	60	12	12	81	10	8	--	4.71	447		
T1400															

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per miller percent reaction value						Mineral constituents in parts per million								
				Calcium	Magnesium	Sodium	Potassium	Chloride	Sulfate	Nitrate	Boron	Silica	TDS	Total hardness as CaCO ₃	Temp 180°C	Temp 105°C	Total hardness as CaCO ₃	
Date sampled				Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	Si	Ca	SiO ₂	CaCO ₃
SANTA YNEZ HYDRO SUBUNIT																		
7N/30W-25G 1 S	70	7.8	1147	22	75	119	3	0	542	30	105	0	0.1	0.15	--	632	364	
6- 1-64				1.010	6.17	5.17	0.08	1	8.88	0.62	2.96					6.21		
7N/30W-25L 1 S	--	7.5	678	29	53	26	0	0	277	6	72	17	0.4	0	--	4.01	291	
6- 1-64				1.045	4.36	1.13	0.12	1	4.54	0.12	2.03	0.27					3.40	
7N/30W-33M 1 S	--	8.4	660	31	68	24	2	11	386	20	35	8.5	0.1	0.05	33	4.38	357	
10-11-63				1.055	5.59	1.04	0.05	0.37	6.33	0.42	0.99	0.14					4.22	
6- 1-64	--	7.9	739	35	68	22	2	0	420	18	37	7.3	0.2	0.07	--	4.08	367	
				1.075	5.67	0.96	0.05	1	6.88	0.37	1.04	0.12					3.96	
7N/31W-36L 2 S	69	7.5	1071	94	71	39	2	0	420	203	39	6.3	0.5	0.12	--	74.9	527	
6- 1-64				4.69	5.84	1.70	0.05	14	6.88	4.23	1.10	0.10					6.61	
8N/30W-29Q 1 S	66	7.8	785	16	98	8	0	0	492	11	25	5.5	0.2	0.07	--	4.39	443	
6- 3-64				0.80	8.06	0.35	0.4	88	8.06	0.23	0.71	0.09					4.06	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents percent reaction value				Mineral constituents in parts per million parts per million				TDS	
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	
Date sampled				CO ₃	K	Na	Ca	HCO ₃	SO ₄	F	B	Sulfur	Total solids
ARGUELLO HYDRO SUBUNIT													
4N/29W-2D 1 S 1- 9-64	--	8.3	1500	20 1.00	1 0.08	1 15.87	3 0.08	11 0.37	582 9.54	182 3.79	110 3.10	1.0 0.8	1036 12
4N/29W-2M 1 S 1-10-64	--	8.1	1300	74 3.69	61 5.02	135 5.87	2 0.05	0 2.82	172 8.39	403 3.27	116 0.03	0.54 0.54	990 12
4N/29W-10G 1 S 12-20-63	74	8.0	1500	93 4.64	61 5.02	217 9.44	2 0.05	0 8.75	534 5.89	283 4.57	162 0	0.8 0.8	944 16
4N/30W-1B 1 S 7-27-64	--	7.6	1420	221 11.03	22 1.81	99 4.30	3 0.08	0 3.82	233 11.39	547 1.72	61 0	1.54 1.54	891 16
4N/31W-1F 1 S 7-27-64	--	7.5	2500	222 11.08	148 12.17	230 10.00	11 0.28	0 30	548 26	558 11.62	479 13.51	0.27 0	1099 --
5N/29W-34B 1 S 12-20-63	68	7.5	980	119 5.94	51 4.19	61 2.65	2 0.05	0 21	458 58	141 23	84 18	0.26 0.23	1114 2
5N/29W-34B 2 S 12-20-63	64	6.8	2000	281 14.02	30 2.47	220 9.57	2 0.05	0 37	15 0.25	1173 24.02	60 1.69	0.2 0	1069 0
5N/30W-28R 1 S 10-23-63	64	7.9	780	112 5.59	22 1.81	38 1.65	1 0.03	0 18	250 4.10	228 4.75	18 0.51	0.18 5.1	1099 5

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reacidence						Mineral constituents in parts per million							
				Calcium C o	Magnesium M g	Sodium N a	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silicate SiO ₂	TDS Total dissolved solids	
ARGUELLO HYDRO SUBUNIT																	
5N/30W-30C 1 S 11-18-63	67	7.8	770	3.49	2.88	2.57	0.03	0	288	66	39	0	0.02	0.18	15	558	319
5N/30W-30F 1 S 10-24-63	--	8.0	1040	1.27	5.0	6.7	2	0	348	299	51	0	0.04	0.16	20	427	427
5N/30W-30N 2 S 10-24-63	66	7.8	1750	1.64	90	122	2	0	570	623	1.44	11	0.04	0.16	20	840	523
5N/30W-31N 1 S 10-24-63	--	7.8	2260	2.11	2.17	4	0.10	0	382	544	119	22	0.04	0.34	18	780	780
7-15-64	--	7.6	2535	1.98	1.25	2.23	4	0	6.26	11.33	3.36	0.35	0.02	0.47	16	1270	1270
5N/30W-31N 2 S 10-24-63	--	7.5	2230	2.71	1.03	1.85	4	0	508	736	262	1.3	0.06	0.47	16	1944	1049
5N/30W-32L 1 S 10-23-63	--	8.2	1180	1.0	3	290	3	0	521	34	149	0	0.00	0.75	21	1771	1100
5N/31W-23G 1 S 11-12-63	64	7.9	1330	9.1	57	165	2	0	360	384	87	0	0.02	0.19	26	774	38
				4.54	4.69	7.17	0.05	29	44	36	49	15				771	771
																1016	462
																989	989

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Mineral constituents in parts per million equivalents per million percent reaciance			Mineral constituents in parts per million equivalents per million percent value			Mineral constituents in parts per million								
			Specific conductance (micro-mhos at 25°C)	Ca	Mg	Na	K	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate					
Date sampled			C	O	HCO ₃	CO ₃	HCO ₃	SO ₄	NO ₃	F	SiO ₂	Boron					
5N/31W-230 1 S	76	8.7	880	0.35	1	220	9.57	0.03	1908	321	90	2.02	1.64	16	580	22	
11-18-63				3	1	95	0.08	5.06	63.59	5.26	2.54	7	1			2456	
5N/31W-25G 1 S	71	7.2	910	1.66	22	32	1	0	315	260	28	0	0.2	0.10	32	738	505
10-25-63				8.28	1.81	1.39	0.03	5.16	5.41	0.79	7					696	
5N/31W-25G 2 S	69	7.2	1180	2.50	22	37	2	0	397	394	52	0	0.2	0.12	31	1028	715
10-25-63				12.48	1.81	1.61	0.05	6.51	8.20	1.47	9					984	
5N/31W-25H 1 S	73	7.4	880	1.52	22	36	1	0	335	210	41	0	0.2	0.07	31	696	470
10-25-63				7.58	1.81	1.57	0.03	5.49	4.37	1.16	11					658	
5N/31W-26E 1 S	72	7.8	700	1.27	13	28	9	0	292	168	25	0	0.1	0.08	30	568	371
11-18-63				6.34	1.07	1.22	0.23	4.79	3.50	0.71	8					544	
5N/31W-26G 1 S	69	7.5	1000	62	19	145	1	0	339	163	73	0	0.4	0.55	20	648	233
11-12-63				3.09	1.56	6.30	0.03	5.56	3.39	2.06	19					651	
5N/31W-28Q 1 S	--	7.4	810	1.42	7	23	1	0	289	148	25	0	0.2	0.10	29	546	384
11-18-63				7.09	0.58	1.00	0.03	4.74	3.08	0.71	8					517	
5N/31W-32A 1 S	--	7.2	920	1.26	29	63	2	0	301	230	71	0	0.2	0.47	16	728	434
11-18-63				6.29	2.38	2.74	0.05	4.93	4.19	2.00	17					686	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reacitance value				Mineral constituents in parts per million						
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fuoride	Boron	Silica			
Date sampled				N g	N a	K	HCO ₃	CO ₃	SO ₄	Cl	F	B	S O 2	Evap 18°C as % of computed				
ARGUELLO HYDRO SUBUNIT																		
5N/31W-35B 1 S 10-25-63	65	8.1	2500	12.246	8.4	1.83	0.03	0	248	893	14.2	9.3	0.4	0.45	16	1890	960	
5N/31W-36K 1 S 10-24-63	--	7.2	1800	10.212	6.91	7.96	0.29	4.06	18.59	4.00	0.15	0.15	1	1	16.97	16.97		
5N/32W-27E 1 S 11-18-63	--	7.8	1100	10.58	8.06	4.91	0.28	5.33	4.91	1.79	0.4	0.53	24	14.88	933			
5N/32W-35F 1 S 10-25-63	88	8.2	1040	2.50	50	23	1.75	3	0	255	91	0	1.6	0.72	28	712	220	
SANTA BARBARA HYDRO UNIT																		
5N/31W-35B 1 S 10-25-63	65	8.1	2500	12.246	6.91	1.83	0.03	4.06	18.59	4.00	0.15	0.15	1	1	14.07	14.07		
5N/31W-36K 1 S 10-24-63	--	7.2	1800	10.212	4.44	8.74	0.28	8.74	10.22	5.05	0.26	0.26	1	1	14.07	14.07		
5N/32W-27E 1 S 11-18-63	--	7.8	1100	10.58	2.50	1.89	7.61	0.08	4.18	1.89	5.81	0	1.6	0.72	28	712	220	
5N/32W-35F 1 S 10-25-63	88	8.2	1040	3.7	1.85	0.66	9.35	0.05	2.15	0	26.1	18.2	0	0.6	1.31	18	74.8	126
T15AO																		
5N/31W-35B 1 S 10-25-63	65	8.1	2500	12.246	6.91	1.83	0.03	4.06	18.59	4.00	0.15	0.15	1	1	14.07	14.07		
5N/31W-36K 1 S 10-24-63	--	7.2	1800	10.212	4.44	8.74	0.28	8.74	10.22	5.05	0.26	0.26	1	1	14.07	14.07		
5N/32W-27E 1 S 11-18-63	--	7.8	1100	10.58	2.50	1.89	7.61	0.08	4.18	1.89	5.81	0	1.6	0.72	28	712	220	
5N/32W-35F 1 S 10-25-63	88	8.2	1040	3.7	1.85	0.66	9.35	0.05	2.15	0	26.1	18.2	0	0.6	1.31	18	74.8	126
T1500																		
5N/31W-35B 1 S 10-25-63	65	8.1	2500	12.246	6.91	1.83	0.03	4.06	18.59	4.00	0.15	0.15	1	1	14.07	14.07		
5N/31W-36K 1 S 10-24-63	--	7.2	1800	10.212	4.44	8.74	0.28	8.74	10.22	5.05	0.26	0.26	1	1	14.07	14.07		
5N/32W-27E 1 S 11-18-63	--	7.8	1100	10.58	2.50	1.89	7.61	0.08	4.18	1.89	5.81	0	1.6	0.72	28	712	220	
5N/32W-35F 1 S 10-25-63	88	8.2	1040	3.7	1.85	0.66	9.35	0.05	2.15	0	26.1	18.2	0	0.6	1.31	18	74.8	126

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per equivalent reaction value						Mineral constituents in parts per million									
				CaCO ₃	MgCO ₃	NaMg	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfur dioxide	Total Evap 105°C	Hardness 0.5°C	Evap 105°C
SOUTH COAST HYDRO SUBUNIT GOLETA HYDRO SUBAREA																			
4N/28W-9G 3 S 8-25-64	--	8.1	1040	10.03 5.14 4.0	4.4 3.62 2.8	4.17 0.08 1	9.6 0.08 32	0 4.16 32	254 6.89 53	331 1.86 14	5 0.08 1	66 0.1	0 0.14	--	824	438			
SANTA BARBARA HYDRO SUBAREA																			
4N/26W-20B 2 S 7-16-64	--	8.0	1360	8.9 4.044 3.1	6.8 5.09 3.9	1.00 4.35 0.03	1 30	0 4.56 32	278 4.12 32	198 4.91 35	174 0.56 4	35 0.27	--	908	502				
4N/27W-14R 1 S 7-16-64	70	8.1	1000	9.4 4.069 4.4	29 3.65 2.38 22	84 0.05 0.05	2 0	287 4.70 45	170 3.54 34	80 2.26 21	4 0.06 1	0 0.14	--	628	354				
4N/27W-18C 1 S 8-13-64	--	7.6	995	8.9 4.044 3.062	87 3.78 3.37	2 0.05 0.05	0 32	392 6.42 53	208 4.33 36	46 1.30 11	0 0.04 11	0 0.14	--	676	403				
4N/27W-18D 1 S 8-17-64	--	7.6	772	6.5 3.024 3.37	4.1 2.00 2.39	4 0.10 1	0 23	206 3.38 40	219 4.56 53	0 0.59 7	0 0.7	0 0.39	--	543	331				
4N/27W-24D 2 S 8-12-64	--	7.4	2050	1.06 7.039	145 8.72 3.39	3 0.08 28	0 0.08 28	263 4.31 19	169 3.52 16	510 14.38 65	0 0.2	0 0.29	--	1518	806				
																	1211		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reactivity value				Mineral constituents in parts per million					
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfate		
Date sampled				Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	SiO ₂	CaCO ₃	Total hardness Evap 80°C Evap 105°C as CaCO ₃			
SANTA BARBARA HYDRO UNIT																	
T1500																	
SOUTH COAST HYDRO SUBUNIT				T15C0				T15C4				T1500					
CARPINTERIA HYDRO SUBAREA				62	7.3	760	68	28	67	1	0	293	114	50	2.1		
4N/25W-30D 1 S	10-18-63	—	—	3.39	2.30	2.91	0.03	34	56	4.80	2.37	1.41	0.03	0.8	0.30		
4N/25W-35B 2 S	7-16-64	—	7.9	1800	11.88	6.09	4.35	0.05	19	28	16	1.6	—	—	—	502	
4N/26W-23F 3 S	7-15-64	—	8.1	800	3.89	2.47	2.39	0.10	55	55	10	1.40	6	0.2	0.27	4.93	
4N/26W-24E 4 S	7-15-64	—	8.8	700	0.70	0.58	5.96	0.03	137	16	30	225	30	0	0.4	—	14.22
									82	8	10	3.28	4.68	0.85	0.4	0.39	899
												37	53	10	—	—	13.58
												16	194	12	112	0	54.8
												0.53	3.18	0.25	3.16	0.27	31.8
												7	4	4.4	—	—	5.21
																4.52	
																3.95	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaonance value						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	TDS at 180°C	
Date sampled	Ca	Mg	Na	K	HCO ₃	CO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	Evap 05°C	Evap 05°C	CaCO ₃		
VENTURA RIVER HYDRO UNIT																	
U0200																	
LOWER VENTURA RIVER HYDRO SUBUNIT U02A0																	
3N/23W-28C 1 S 11-1-63	--	8.0	3150	152 7.58	85 6.99	550 23.91	8 0.20	0	278 4.56	447 9.31	819 23.10	93.0 1.50	0.4 4	2.62	18	2390	729
1-29-64	68	7.7	5600	124 6.19	68 5.59	1050 45.65	9 0.23	0	378 6.20	183 3.81	1713 4.831	0.9 0.01	0.2 0.01	5.00	12	3410	589
3N/23W-33G 1 S 10-18-63	69	7.4	2610	239 11.93	23 1.89	485 1.89	8 0.20	0	1616 26.49	46 0.96	260 7.33	0 21	0.1 0.27	33	1802	692	
																	1891

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents				parts per million equivalents per million percent reactivity				Mineral constituents in parts per million				Mineral constituents per million parts			
				Copper	Manganese	Sodium	Potassium	Calcium	Boronate	Sulfate	Chloride	Nitrate	Fug.	Boron	Sulfate	Evol. (50°C) as Cat. 3	Evol. (55°C) as Cat. 3	Total hardness as CaCO ₃	
Date sampled				Na	K	Na	K	CO ₃	HCO ₃	SO ₄	NO ₃	F	B	S _{0.2}					
UPPER VENTURA RIVER HYDRO SUBUNIT U0280																			
3N/23W- 5B 1 S 10- 3-63	66	7.5	900	97	52	55	2	0	290	261	52	6.7	0.2	0.58	17	702	456		
3N/23W- 5H 1 S 10- 3-63	--	7.8	860	81	46	56	2	0	229	267	37	8.5	0.4	0.64	17	678	686		
3N/23W- 8H 1 S 4-28-64	--	7.6	1140	149	43	3.00	0.05	2.39	3.75	5.56	1.04	0.14	1	0.11		628	391		
8-20-64	68	8.1	1160	143	39	69	2	0	348	286	64	14	0.4	0.55	21	848	549		
3N/23W- 8H 2 S 8-20-64	--	7.5	1340	163	46	87	3	0	5.70	5.95	1.80	0.23	2			820			
4N/23W- 9B 1 S 1-21-64	--	7.7	940	107	42	53	2	0	326	285	71	12.0	0.4	0.50	--	828	518		
4N/23W-11D 1 S 10- 8-63	--	8.1	520	37	21	75	3	0	5.34	5.93	2.00	0.19	1			789			
4N/23W-14G 1 S 10- 8-63	--	7.9	1808	168	45	165	5	0	3.02	3.32	85	17.0	0.4	0.50	--	1000	596		
VENTURA RIVER HYDRO UNIT U0200																			
3N/23W- 5B 1 S 10- 3-63	66	7.5	900	4.84	4.28	2.39	0.05	4.75	5.43	1.47	1.3	1	0.11				653		
3N/23W- 5H 1 S 10- 3-63	--	7.8	860	4.04	3.78	2.43	0.05	3.75	3.6	5.56	1.04	1	0.14				179		
3N/23W- 8H 1 S 4-28-64	--	7.6	1140	149	3.54	3.00	0.05	2.43	4.2	4.2	4.3	13	2			327			
8-20-64	68	8.1	1160	143	3.14	3.26	0.08	2.24	1	4.0	4.4	15	1			1195			
3N/23W- 8H 2 S 8-20-64	--	7.5	1340	163	3.13	3.78	0.08	3.08	1	3.9	4.4	15	1			604			
4N/23W- 9B 1 S 1-21-64	--	7.7	940	107	5.34	3.45	0.05	2.30	21	4.90	4.39	1.66	2			1155			
4N/23W-11D 1 S 10- 8-63	--	8.1	520	37	1.85	1.73	0.03	2.13	1	2.34	2.7	4.1	11	0.4	0.08	25			
4N/23W-14G 1 S 10- 8-63	--	7.9	1808	168	8.38	3.70	0.13	7.17	1	3.84	0.56	1.16	0.18						

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per millilitre reaction value						Mineral constituents in parts per million				
				Magnesium	Sodium	Potassium	Sulfate	Bicarbonate	Chloride	Nitrate	Fluoride	Boron	Silico	
Date sampled	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	E	S-0.2	TDS	
UPPER VENTURA RIVER HYDRO SUBUNIT U0280														
4N/23W-14G 1 S 8-14-64	--	7.6	1826	1.76 8.78	4.9 4.03	5 7.09	0.13	0	4.14 6.79	260 5.41	1.5 7.73	0.69 0.02	--	1265
4N/23W-16C 4 S 10- 4-63	6.2	7.9	820	72 3.59	4.7 3.87	50 2.17	2 0.05	0	220 3.61	256 5.33	32 0.90	0.58 0.13	--	1133
1- 9-64	6.0	7.7	880	1.16 5.79	3.3 2.71	52 2.26	2 0.05	0	268 4.39	266 5.44	35 0.99	0.63 0.11	--	644
4N/23W-20J 2 S 10- 4-63	6.2	8.0	900	80 3.99	55 4.52	48 2.09	2 0.05	0	224 3.67	284 5.91	39 1.10	0.53 0.11	--	592
4N/23W-33M 1 S 10- 3-63	--	8.0	1700	88 4.39	118 9.70	135 5.87	3 0.08	0	354 5.80	413 8.60	213 6.01	0.67 0.4	--	684
VENTURA RIVER HYDRO UNIT														
U0290														
4N/23W-14G 1 S 8-14-64	--	7.6	1826	1.76 8.78	4.9 4.03	5 7.09	0.13	0	4.14 6.79	260 5.41	1.5 7.73	0.69 0.02	--	1265
4N/23W-16C 4 S 10- 4-63	6.2	7.9	820	72 3.59	4.7 3.87	50 2.17	2 0.05	0	220 3.61	256 5.33	32 0.90	0.58 0.13	--	1133
1- 9-64	6.0	7.7	880	1.16 5.79	3.3 2.71	52 2.26	2 0.05	0	268 4.39	266 5.44	35 0.99	0.63 0.11	--	644
4N/23W-20J 2 S 10- 4-63	6.2	8.0	900	80 3.99	55 4.52	48 2.09	2 0.05	0	224 3.67	284 5.91	39 1.10	0.53 0.11	--	592
4N/23W-33M 1 S 10- 3-63	--	8.0	1700	88 4.39	118 9.70	135 5.87	3 0.08	0	354 5.80	413 8.60	213 6.01	0.67 0.4	--	684

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents				parts per million equivalents per million percent reactivity				Mineral constituents per million parts				Mineral constituents in parts per million			
				Magnesium	Sodium	Potassium	Sulfur	Carbonate	Boron	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfate	Fluoride	Total hardness as CaCO ₃		
Date sampled				M g	No	M g	M g	C O ₃	HCO ₃	SO ₄	H	SO ₂	F	CaCO ₃ Computed					
OJAI HYDRO SUBUNIT																			
UPPER OJAI HYDRO SUBAREA				U02C0	U02C1	U02C1	U02C1	U02C1	U02C1	U02C1	U02C1	U02C1	U02C1	U02C1	U02C1	U02C1	U02C1		
4N/22W- 90 2 S	66	8.0	1495	152	7.58	46	3.54	1.26	0	439	262	126	4.8	0.8	0.48	39	1027		
10-10-63					21		21	5.48	0.03	7.20	5.45	3.55	0.77	5			556		
4N/22W-12N 1 S	65	6.8	994	68	23	3.39	1.89	135	1	527	27	55	3.4	1.55	34	1014			
10-10-63					30	17	30	5.87	0.03	8.64	0.56	1.55	0.55	5			1014		
OJAI HYDRO SUBAREA				J02C2	J02C2	J02C2	J02C2	J02C2	J02C2	J02C2	J02C2	J02C2	J02C2	J02C2	J02C2	J02C2	J02C2		
4N/22W- 5L 8 S	66	7.3	830	108	21	5.39	1.73	39	1	245	154	32	35	0.2	0.08	19	542		
10-17-63					61	20	61	1.70	0.03	4.02	3.21	0.90	0.56	6			356		
64	7.8	800	105	24	38	5.24	1.97	1.65	0.03	241	163	39	36	0.2	0.11	19	530		
1-14-64					19	19	19	1.65	0.03	3.95	3.39	1.10	0.58	1			530		
4N/22W- 6K 7 S	69	7.8	1582	149	39	3.21	6.78	156	2	261	238	290	13	0.7	0.35	28	528		
10-16-63					43	18	39	6.78	0.05	4.28	4.96	8.18	0.21	28			528		
4N/22W- 7C 1 S	67	7.7	729	92	22	4.59	1.81	44	1	256	173	19	1.5	0.7	0.05	25	544		
10- 9-63					55	22	55	1.81	0.03	4.20	3.60	0.54	0.02	6			544		
4N/22W- 9B 1 S	--	7.1	944	122	33	6.09	2.71	44	1	334	215	26	12	0.6	0.08	25	533		
10-10-63					57	25	57	2.71	0.03	5.47	4.48	0.73	0.19	7			533		
VENTURA RIVER HYDRO UNIT																			
U0200				U0200	U0200	U0200	U0200	U0200	U0200	U0200	U0200	U0200	U0200	U0200	U0200	U0200	U0200		
4N/22W- 90 2 S	66	8.0	1495	152	7.58	46	3.54	1.26	0	439	262	126	4.8	0.8	0.48	39	1027		
10-10-63					21		21	5.48	0.03	7.20	5.45	3.55	0.77	5			1027		
4N/22W-12N 1 S	65	6.8	994	68	23	3.39	1.89	135	1	527	27	55	3.4	1.55	34	1014			
10-10-63					30	17	30	5.87	0.03	8.64	0.56	1.55	0.55	5			1014		
64	7.8	800	105	24	38	5.24	1.97	1.65	0.03	241	163	39	36	0.2	0.11	19	530		
1-14-64					19	19	19	1.65	0.03	3.95	3.39	1.10	0.58	1			530		
4N/22W- 6K 7 S	69	7.8	1582	149	39	3.21	6.78	156	2	261	238	290	13	0.7	0.35	28	528		
10-16-63					43	18	39	6.78	0.05	4.28	4.96	8.18	0.21	28			528		
4N/22W- 7C 1 S	67	7.7	729	92	22	4.59	1.81	44	1	256	173	19	1.5	0.7	0.05	25	533		
10- 9-63					55	22	55	1.81	0.03	4.20	3.60	0.54	0.02	6			533		
4N/22W- 9B 1 S	--	7.1	944	122	33	6.09	2.71	44	1	334	215	26	12	0.6	0.08	25	544		
10-10-63					57	25	57	2.71	0.03	5.47	4.48	0.73	0.19	7			544		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silicate	Total hardness Evap 180°C	TDS Evap 105°C	
OJAI HYDRO SUBUNIT OJAI HYDRO SUBAREA																	
4N/23W-2B 1 S 10-10-63	--	7.8	820	9.6 4.079	3.2 2.063	3.8 1.065	4 0.10	0 4.08	255 3.04	146 3.4	52 16	23 0.37	0.08 0.1	31 31	550 547	371	
4N/23W-12H 2 S 10-30-63	--	8.1	750	1.16 5.079	24 1.70	39 0.03	1 0	0 4.44	271 4.00	192 4.00	23 7	32 0.52	0.02 0.05	18 18	616 579	388	
8-14-64	--	7.6	861	1.15 5.074	30 2.447	36 1.57	0.1 0.03	0 4.00	287 3.093	189 0.59	21 0.42	26 4	0.5 0.42	0.05 0.05	--	640	
4N/23W-12K 2 S 10- 9-63	6.8	7.5	2416	291 14.052	75 6.017	115 5.00	0.2 0.05	0 4.52	276 5.006	243 15.09	535 0.68	42 0.68	0.5 0.20	30 30	1845 1035	560	
8-14-64	--	7.4	2606	320 15.097	73 5.058	130 20	0.2 0.05	0 5.00	305 5.027	253 16.027	590 16.064	22 0.35	0.5 0.1	--	2189	1099	
5N/22W-32J 2 S 1-16-64	6.8	7.6	1220	143 7.014	33 2.071	107 4.65	2 0.05	0 4.85	296 5.085	281 4.000	142 27	0 0.04	0.26 0.27	18 18	858	493	
																872	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES ORAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos oh 25°C)	Mineral constituents in						Mineral constituents in							
				Calcium	Magnesium	Sodium	Potassium	Chloride	Sulfate	Boron	Nitrate	Fuoride	Boron	Sulfate	Total		
Date sampled				mg	mg	mg	mg	mg	mg	mg	mg	mg	mg	mg	mg		
OYNARD PLAIN HYDRO SUBUNIT																	
OYNARD HYDRO SUBAREA				U03AO	U03AI	SANTA CLARA-CALLEGUAS HYDRO UNIT U0300											
1S/21W-8L 1 S 10-15-63	66	8.2	1230	54	30	8	0.20	0	324	126	190	0.0	0.4	0.61	34	778	258
				2.69	2.47	8.13			5.31	2.62	5.36						
				20	18	60	1		40	20	40						
3-27-64	66	8.5	1200	40	41	185	7	5	307	144	186	0.0	0.1	0.55	32	788	269
				2.00	3.37	8.04	0.18	0.17	5.03	3.00	5.25						
				15	25	59	1	1	37	22	39						
1S/21W-8L 2 S 10-15-63	66	7.4	30000	818	866	6500	28	0	224	1671	12517	0.0	0.1	1.67	25	25966	5606
				40.82	71.22	282.62	0.72		3.67	34.79	352.08						
3-27-64	67	7.7	25000	733	405	6590	80	0	203	1689	11560	0	0.1	2.16	26	22537	
				36.58	33.31	286.53	2.05		3.33	35.16	325.99						
				10	18	71	1	1	1	10	89						
1S/21W-10R 1 S 1-29-64	--	7.9	1140	76	52	84	7	0	189	228	153	0.0	0.4	0.31	18	786	404
				3.79	4.28	3.65	0.18		3.10	4.75	4.31						
				32	36	31	2		25	39	35						
1N/21W-9M 1 S 7-17-64	--	8.4	880	61	27	105	5	6	306	154	49	0.0	0.2	0.39	--	712	263
				3.04	2.22	4.57	0.13	0.20	5.02	3.21	1.38						
1N/21W-17B 1 S 3-10-64	--	7.9	1161	118	36	83	4	0	234	366	38	2.2	0.8	0.68	37	558	
				5.89	2.96	3.61	0.10		3.84	7.62	1.07	0.04					
				47	24	29	1		31	61	9						
1N/21W-18A 1 S 7-16-64	--	8.2	1140	116	35	101	4	0	293	312	62	1	0.6	0.64	--	808	443
				5.79	2.88	4.39	0.10		4.80	6.50	1.75	0.02					
				44	22	33	1		37	50	13						

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in						Mineral constituents in							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Boron	Silicate	TDS	Total hardness	
Date sampled				Mg	Mg	No	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	Temp 105°C	CO ₂ Computed
OXNARD PLAIN HYDRO SUBUNIT OXNARD HYDRO SUBAREA																	
1N/21W-18L 1 S 7-16-64	--	8.1	1140	94	52	80	4	0	267	334	4.5	0.4	0.73	--	830	449	
1N/21W-18Q 1 S 11-7-63	--	7.7	1162	5.69	4.28	3.48	0.10	35	4.38	6.95	1.27	0.02	--	742			
				3.7	34	28	1	35	55	10							
				5.69	2.88	3.83	88	--	4.47	6.93	1.27		0.7	0.64	--	820	439
5- 5-64	--	8.1	1200	117	35	90	--	--	264	345	4.4	--	0.6	0.66	--	824	436
				5.84	2.88	3.91			4.33	7.18	1.24						
7-16-64	--	8.2	1120	116	31	86	4	0	256	313	4.6	0.0	0.68	--	850	417	
				5.79	2.55	3.74	0.10		4.20	6.52	1.30						
				4.8	21	31	1	35	54	11							
1N/21W-20M 1 S 6- 5-64	--	7.5	1965	121	56	285	6	0	342	666	123	5.0	0.8	1.14	43	1495	533
				6.04	4.61	12.39	0.15		5.61	13.87	3.47	0.08					
				26	20	53	1	24	6.0	15							
1N/21W-20R 1 S 6- 5-64	--	7.6	1218	124	4.5	105	5	0	300	362	62	4.0	0.6	0.64	44	920	495
				6.19	3.70	4.57	0.13		4.92	7.54	1.75	0.06					
				4.2	25	31	1	34	53	12							
1N/21W-28F 2 S 6- 5-64	--	7.5	1314	121	47	123	5	0	337	331	98	1.5	0.5	0.50	36	965	496
				6.04	3.87	5.35	0.13		5.52	6.89	2.76	0.02					
				39	25	35	1	36	45	18							
1N/21W-28G 1 S 6- 5-64	7.0	8.2	1475	143	54	140	5	0	351	388	124	2.5	0.6	0.50	43	1110	579
				7.14	4.44	6.09	0.13		5.75	8.08	3.50	0.04					
				4.0	25	34	1	33	47	20							

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity						Mineral constituents in parts per million						
			Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	
Date sampled			N.O.	N.O.	K	CO ₃	HCO ₃	SO ₄	Cl	F	B	SiO ₂	SO ₂	Total hardness	
OXNARD PLAIN HYDRO SUBUNIT OXNARD HYDRO SUBAREA															
1N/21W-28N 1 S 3-13-64	--	7.7	2062	1.94 9.68	85 6.99	135 5.87	8 0.20	0	312 5.11	315 6.56	7.4 11.00	0.46 0.12	3.2	14,880	8,34
1N/21W-28N 2 S 6- 5-64	--	7.8	1517	7.0 3.49	43 3.54	205 8.91	7 0.18	0	346 5.67	220 4.58	1.0 5.70	0.5 0.02	1.321	1321	352
1N/21W-29C 1 S 7-16-64	--	8.2	1600	1.16 5.79	4.7 3.87	195 8.48	5 0.13	0	281 4.61	490 10.20	1.0 3.27	0.2 0.02	4.7	960	966
1N/21W-29G 1 S 7-17-64	--	7.4	1576	1.17 5.84	55 4.52	174 7.57	4 0.10	0	294 4.82	473 9.85	1.8 3.16	0.6 0.03	--	11,74	483
1N/21W-30A 1 S 7-16-64	--	8.1	1460	1.45 7.24	6.1 5.02	125 5.44	5 0.13	0	303 4.97	503 10.47	6.4 1.80	0.6 0.19	--	11,09	11,09
1N/21W-30C 2 S 7-17-64	--	7.7	1436	1.47 7.34	56 4.61	111 4.83	5 0.13	0	275 4.51	487 10.14	1.12 1.86	0.6 0.18	--	11,26	518
1N/21W-31A 1 S 7-17-64	--	8.1	1160	1.21 6.04	38 3.13	95 4.13	4 0.10	0	268 4.39	365 7.60	4.6 1.30	0.6 0.0	1.083	1083	613
1N/21W-31J 1 S 11-19-63	--	7.5	1090	1.79 3.94	40 3.29	99 0.13	5 0.13	0	264 4.33	272 5.66	59 1.66	0.2 0.04	35	732	362
														722	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reionance value						Mineral constituents in parts per million							
				CaCO ₃	MgSO ₄	NaCl	KNO ₃	CaCO ₃	MgSO ₄	NaCl	KNO ₃	Boron	Fuoride	Ni	TDS	Total CaCO ₃	
OXNARD PLAIN HYDRO SUBUNIT OXNARD HYDRO SUBAREA																	
1N/21W-31P 1 S 5-26-64	--	7.3	37000	393 19.6	1245 102.39	10000 434.80	230 5.88	0 2.80	171 88.67	4259 474.89	0.0 0.0	0.04 0.02	1.86 0.63	--	33488 33053	6105	
1N/21W-32A 1 S 11-19-63	--	7.5	1430	54 2.69	198 8.61	6 0.15	0 51	0 1	300 4.92	319 6.64	0.0 5.30	0.02 31	38 31	1066 1016	402		
1N/21W-32A 2 S 10-15-63	--	6.7	855	48 2.40	96 3.54	4 0.17	0 0.10	0 1.10	229 3.75	242 5.04	0.0 1.27	0.02 37	0.45 50	8 13	297		
1N/21W-32C 1 S 11-19-63	--	8.0	1240	65 3.24	42 3.45	8 0.22	0 0.20	0 2.20	271 4.44	274 5.70	2.7 2.93	0.02 0.04	0.45 43	8 22	660 808		
1N/21W-32G 1 S 11-19-63	--	7.8	890	68 3.29	34 2.80	95 4.13	5 0.13	0 4.00	291 4.77	211 4.39	0.0 1.30	0.02 46	0.53 42	37 12	599 640		
3-12-64	--	7.8	2028	196 9.78	70 5.76	165 7.17	5 0.13	0 4.80	293 7.07	374 7.79	0.5 10.10	0.02 0.12	0.62 44	42 1	1450 640		
3-12-64	--	7.6	1934	190 9.48	65 5.35	160 6.96	5 0.13	0 4.88	298 7.70	370 7.70	0.5 9.19	0.02 0.04	0.62 42	39 1	778 1360		
1N/21W-22K 1 S 11-19-63	--	7.7	1250	136 6.79	45 3.70	106 4.61	6 0.15	0 3.00	270 4.43	420 8.74	1.8 2.31	0.04 0.03	0.65 56	29 15	1410 1308		
																525 960	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reflectance value						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Total Evap 80°C	Total Evap 105°C
Date sampled				K	Mg	Na	K	CO ₂	HCO ₃	SO ₄	Cl	F	B				
PLAIN HYDRO SUBUNIT																	
OXNARD HYDRO SUBAREA																	
IN/21W-32K 1 S 9-29-64	69	7.4	1308	77	47	185	5	0	309	275	184	0.0	0.1	0.41	--	930	386
IN/21W-32L 1 S 10-15-63	67	7.6	1160	122	384	8.04	0.13	51	5.06	5.73	5.19	32	36	32	--	925	453
IN/21W-32Q 1 S 10-15-63	70	7.8	1030	77	2.96	4.17	0.10	22	4.34	7.60	1.58	32	56	12	30	870	4.53
3-22-64	68	7.7	900	3.84	2.30	110	3	0	285	245	43	0.0	0.2	0.46	29	732	307
IN/22W-2K 4 S 8-27-64	--	7.9	1839	1.94	114	6	0	225	771	91	2.0	1.0	0.80	--	1558	851	
IN/22W-3F 4 S 11-22-63	--	7.4	1472	1.66	54	103	--	--	296	502	57	8.0	0.7	0.78	--	1379	637
5- 5-64	--	8.0	1453	8.28	4.44	4.48	26	4.96	3.69	16.05	2.57	0.03	1.13	1	--	1097	1037
IN/22W-5G 3 S 8-27-64	--	7.8	1105	1.10	4.5	100	--	--	273	458	54	12.0	0.7	0.66	--	1078	577

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents percent reaction						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	TDS	
Date sampled	No.	Mg	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	mg/l	mg/l	mg/l	mg/l	Total hardness °S	
OXNARD PLAIN HYDRO SUBUNIT OXNARD HYDRO SUBAREA				U03A1						U03A0						SANTA CLARA-CALLEGUAS HYDRO UNIT U0300	
IN/22W- 5M 1 S	--	8.0	1175	125	49	90	3	0	266	412	51	1.5	0.9	0.70	31	918	514
6- 4-64				6.24	4.03	3.91	0.08		4.36	8.58	1.44	0.02					
				44	28	27	1		30	60	10						
IN/22W- 7D 1 S	--	7.6	1140	77	68	91	3	0	251	385	43	0.0	0.6	0.73	23	892	472
5-22-64				3.84	5.59	3.96	0.08		4.11	8.02	1.21						
				29	41	29	1		31	60	9						
IN/22W- 8B 1 S	--	7.8	1147	122	45	89	5	0	259	396	38	0.5	0.8	0.74	33	815	490
6- 4-64				6.09	3.70	3.87	0.13		4.25	8.24	1.07	0.01					
				44	27	28	1		31	61	8						
IN/22W- 9E 1 S	--	7.4	1428	157	62	98	5	0	283	516	54	10.0	1.0	0.64	37	1143	647
6- 4-64				7.83	5.10	4.26	0.13		4.64	10.74	1.52	0.16					
				45	29	25	1		27	63	9						
IN/22W- 9H 1 S	--	7.8	1743	184	75	118	--	--	257	646	85	6	0.7	0.81	--	1379	768
10- 1-63				9.18	6.17	5.13			4.21	13.45	2.40	0.10					
				45	30	25			21	67	12						
1- 2-64	--	7.3	1887	215	70	119	--	--	288	691	95	5	0.7	0.77	--	1382	825
				10.73	5.76	5.17			4.72	14.39	2.68	0.08					
				50	27	24			22	66	12						
IN/22W- 9M 1 S	--	8.2	1340	124	64	100	4	0	272	480	53	8.0	0.6	0.73	24	1100	573
12-26-63				6.19	5.26	4.35	0.10		4.46	9.99	1.49	0.13					
				39	33	27	1		28	62	9						
5-22-64	--	7.6	1300	119	68	96	4	0	269	467	53	5.7	0.6	0.58	22	1054	577
				5.94	5.59	4.17	0.10		4.41	9.72	1.49	0.09					
				38	35	26	1		28	62	9						

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per thousand percent reactivity								Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfate	Total hardness as CaCO ₃
Date sampled				CO ₃	Na	K	CO ₃	CO ₃	SO ₄	Cl	NO ₃	F	B	SO ₂		
OXNARD PLAIN HYDRO SUBUNIT OXNARD HYDRO SUBAREA																
1N/22W-90 2 S 11-27-63	--	7.6	1435	153 7.63	50 4.11	104 4.52	--	--	257 4.21	430 8.95	105 2.96	4.0 0.06	0.8 0.71	--	1026 974	
12-26-63	--	8.1	1440	147 7.34	55 4.52	110 4.78	4 0.10	0 1	257 4.21	459 9.56	108 3.05	2.7 0.04	0.76 0.71	24	1122 593	
5- 5-64	--	7.9	2013	210 10.48	73 6.00	110 4.78	--	--	233 3.82	434 9.04	298 8.40	3.0 0.05	0.7 0.68	--	1037 825	
1N/22W-14D 1 S 6- 4-64	--	7.8	1258	119 5.94	52 4.28	98 0.10	4 0.10	0 1	232 3.80	469 9.76	49 1.38	1.0 0.02	0.9 0.70	34	1413 1244	
1N/22W-14K 1 S 11- 7-63	--	8.0	1276	127 6.34	44 3.62	95 4.13	--	--	256 4.20	422 8.79	48 1.35	-- 0.8	0.79 0.71	--	985 942	
5- 5-64	--	7.9	1287	130 6.49	39 3.21	97 4.22	--	--	248 4.06	419 8.72	47 1.33	-- 0.7	0.78 0.71	--	937 937	
1N/22W-15A 1 S 12-26-63	--	7.9	1185	105 5.24	56 4.61	96 4.17	4 0.10	0 1	256 4.20	418 8.70	47 1.33	0.9 0.01	0.6 0.75	16	493 485	
5-25-64	--	8.0	1200	81 4.04	78 6.41	95 4.13	4 0.10	0 1	269 4.41	421 8.77	52 1.47	0.6 0.03	0.78 0.71	21	902 870	

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silicate	TDS	
Date sampled				Na	Mg	K	CO ₃	HCO ₃	SO ₄	Cl	F	B	SiO ₂	SiO ₂	CaCO ₃		
OXNARD PLAIN HYDRO SUBUNIT																	
OXNARD HYDRO SUBAREA																	
1N/22W-15B 3 S	--	8.1	1210	108	5.39	4.93	4.17	0.10	0	260	434	3.6	0.6	0.73	27	986	516
12-26-63				37	34	29	1		4.26	9.04	1.35	0.06				910	
1N/22W-15C 1 S	--	8.1	1280	134	50	105	4	0	259	472	50	2.3	0.8	0.68	24	1034	540
12-26-63				6.69	4.11	4.57	0.10		4.25	9.83	1.41	0.04				970	
5-21-64	--	7.6	1200	126	54	96	4	0	250	419	84	0.8	0.6	0.72	24	916	537
				6.29	4.44	4.17	0.10		4.10	8.72	2.37	0.01					
1N/22W-15D 5 S	68	8.1	1320	136	50	105	4	0	262	464	52	4.0	0.6	0.78	24	1032	545
12-26-63				6.79	4.11	4.57	0.10		4.29	9.66	1.47	0.06				969	
1N/22W-15L 1 S	--	7.8	1850	210	68	123	4	0	230	395	344	0.0	0.6	0.73	26	1584	804
12-26-63				10.48	5.59	5.35	0.10		3.77	8.22	9.70					1284.	
5-21-64	--	7.6	2400	304	82	143	5	0	216	411	573	0.0	0.6	0.82	23	1812	1096
				15.17	6.74	6.22	0.13		3.54	8.56	16.16						
1N/22W-15P 1 S	--	8.1	1230	116	60	100	4	0	242	405	99	0.0	0.6	0.80	28	980	536
11-19-63				5.79	4.93	4.35	0.10		3.97	8.43	2.79					932	
12-26-63	--	8.0	1270	119	56	97	4	0	226	400	106	0.0	0.6	0.78	26	1014	528
				5.94	4.61	4.22	0.10		3.70	8.33	2.99					920	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfur dioxide	Total carbon dioxide	
Date sampled				M g	M g	N a	K	C O ₃	H C O ₃	S O ₄	C l	N O ₃	F	B	S O ₂	C O ₂	
OXNARD PLAIN HYDRO SUBUNIT																	
1N/22W-15Q 1 S 5-21-64	--	8.0	1480	105 5.24	81 6.66	105 4.0	4 0.10	0 24.0	393 3.93	150 8.18	0.0 4.23	0.0 0.0	0.87 0.78	26 24	1102 992	595 511	
1N/22W-15Q 2 S 12-26-63	6.8	8.2	1300	127 6.34	47 3.87	105 4.57	4 0.10	0 24.0	401 3.93	100 8.35	0.0 2.82	0.0 0.0	0.78 0.75	24 24	983 992	511	
1N/22W-16Q 2 S 11- 1-63	--	7.0	1230	131 6.54	46 3.78	96 4.17	4 0.10	0 252	404 4.13	79 8.61	0.0 2.23	0.0 0.0	0.75 0.75	24 24	927 956	516	
3-10-64	--	7.9	1214	129 6.44	46 3.78	91 3.96	4 0.10	0 249	392 4.08	67 8.16	1.6 1.89	0.0 0.03	0.76 0.76	30 30	900 900	511	
1N/22W-16D 4 S 9- 2-64	6.8	8.0	1144	120 5.99	40 3.29	84 3.65	4 0.10	0 243	373 3.98	41 7.77	0.0 1.16	0.0 0.0	0.66 0.72	36 33	840 819	464	
1N/22W-16E 1 S 3-18-64	6.8	7.7	3115	341 17.02	143 11.76	145 6.30	7 0.18	0 156	436 2.56	822 9.08	5.0 23.18	0.0 0.08	0.72 0.72	33 33	819 2910	464	
1N/22W-16Q 1 S 3-31-64	6.7	7.5	1400	123 6.14	46 3.78	123 5.35	5 0.13	0 1.16	71 7	282 5.87	300 8.46	0.0 0.55	0.57 0.57	7 7	2010 1440	464	
1N/22W-17B 1 S 11- 1-63	--	7.0	980	93 4.04	37 3.04	87 3.78	4 0.10	0 184	362 3.02	43 7.54	0.0 1.21	0.0 0.06	0.75 0.75	29 29	748 747	384	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reagent						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfur	Total dissolved solids	
Date sampled				Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	S	CO ₂		
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																	
OXNARD PLAIN HYDRO SUBUNIT OXNARD HYDRO SUBAREA				U03A0	U03A1												
1N/22W-17C 1 S 11- 1-63	--	7.9	1040	109 5.44	32 2.63	85 3.70	4 0.10	0 3.52	215 7.20	346 1.04	0 0.0	0 0.0	0 0.80	0 0.80	29 25	696 878	4.04 4.56
1N/22W-17D 2 S 11- 1-63	--	8.0	1090	110 5.49	44 3.62	94 4.09	4 0.10	0 3.85	235 8.43	405 1.18	0 0.0	0 0.0	0 0.80	0 0.80	25 25	749 841	74.9 84.1
	--	8.2	1144	122 6.09	42 3.45	86 3.74	4 0.10	0 4.36	266 4.36	381 1.13	40 0.03	1.6 0.9	0 0.70	0 0.70	30 30	876 876	4.77 4.77
	3-10-64			46	26	28	1	32	7.93	59	8						
1N/22W-17O 1 S 10-14-63	64	6.6	26000	2336 116.99	693 154.35	3550 0.10	4 0.10	0 2.39	146 32.27	1550 287.98	10212 0.0	0 0.0	0 0.1	0 0.76	16 16	23550 23550	8685 8685
	70	4.4	27624	2128 106.19	864 71.06	3888 169.05	43 1.10	0 49	0 1	1449 10	11375 89	2.5 0.0	0 0.7	1.30 1.30	9 9	21406 21406	8870 8870
	3-16-64			35	37	27	1	33	7.47	359 1.30	46 10	0 0.0	0 0.58	0 0.58	23 23	840 840	4.66 4.66
1N/22W-18E 1 S 4- 7-64	56	7.8	1000	91 4.54	58 4.77	79 3.43	4 0.10	0 4.23	258 7.47	359 1.30	46 10	0 0.0	0 0.58	0 0.58	23 23	840 840	788 788
1N/22W-18P 1 S 5-19-64	--	8.0	1120	84 4.19	67 5.51	91 3.96	3 0.08	0 4.10	250 8.31	399 1.30	46 9	0 0.0	0 0.6	0 0.73	26 26	912 912	4.85 4.85
1N/22W-19A 1 S 5-19-64	68	8.0	1040	78 3.89	61 5.02	85 3.70	4 0.10	0 4.03	246 7.43	357 1.10	39 59	0 0.0	0 0.4	0 0.64	27 27	854 854	4.46 4.46
				31	39	29	1	32	59	59	9					773 773	

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity value						Mineral constituents in parts per million								
				Ca	Mg	Sodium	Potassium	Bicarbonate	Sulfate	Nitrate	Fluoride	Boron	Sulfur dioxide	Total Evap 10°C				
Date sampled				CO ₃	K	Na	CO ₃	HCO ₃	SO ₄	NO ₃	C ₁	F	CO ₂	CaCO ₃ Computed				
OXNARD PLAIN HYDRO SUBUNIT OXNARD HYDRO SUBAREA																		
1N/22W-19H 1 S 4- 1-64	66	7.2	8000	29.59	19.57	238	825	15	0	7	334	2738	0.0	0.73	1	5936 2460		
1N/22W-20B 1 S 11- 1-63	—	7.5	12500	583	292	2550	30	0	193	6.95	77.21	92	0.0	0.1	0.73	4748		
1N/22W-20E 2 S 11- 7-63	—	7.9	1243	141	18	110.87	0.77	0	3.16	19.51	139.08	2	0.0	1.30	31	9442 2657		
5- 5-64	—	7.8	1236	7.04	2.30	93	—	—	246	4.06	4.3	—	0.5	0.45	—	9451		
1N/22W-20N 2 S 10-16-63	61	8.0	1090	64	6.17	3.74	0.10	—	4.03	8.45	1.21	—	—	—	—	467		
3-17-64	64	8.1	1140	126	39	83	4	—	253	3.83	4.2	—	3.0	0.3	0.50	—	882	
1N/22W-20R 1 S 10-16-63	62	7.0	16600	1567	78.19	57.73	108.70	1.02	47	4.15	7.97	1.18	0.05	0.05	—	—	456	
3-17-64	70	7.7	26385	1612	915	3978	64	0	2.90	1.77	1160	7641	0.0	0.2	1.45	1.8	930 468	
				80.44	75.25	172.96	1.64	24	44	1	1.10	89	215.48	—	—	—	792	
									52	1	1.0	9	31.00	299.63	0.0	1.0	1.80	22 13717
									23	1	1.0	9	2.56	1489	10625	—	—	20931 6801
													31.00	299.63	—	—	18785	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per thousand percent reactivity						Mineral constituents in parts per million					
			Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Boron	Chloride	Sulfate	Nitrate	Boron	Sulfate	TDS
Date sampled	pH	Na	Mg	K	CO ₂	HCO ₃	HC ₀ 3	SO ₄	Cl	F	Na	Total Evap (OS/C)	Total Evap (OS/C) Computed	
OXNARD PLAIN HYDRO SUBUNIT OXNARD HYDRO SUBAREA														
1N/22W-20R 1 S 7- 6-64	--	5.6	17152	1509	711	1575	34	0	7	956	5.0	0.7	1.08	0
			75.30	58.47	68.48	0.87	34	0.11	19.90	180.48	0.08			12500
			37	29					10	90				6694
8-19-64	--	6.5	33000	1671	980	6800	90	30	130	2041	14930	0.0	0.1	11195
			83.38	80.60	295.66	2.30	1.00	2.13	42.49	421.03				30540
			18	17	64				9	90				8206
9-18-64	6.1	7.6	30000	1460	1070	8600	80	0	145	3330	16121	0.0	0.1	26608
			72.85	88.00	373.93	2.05		2.38	69.33	454.61				30400
1N/22W-21B 1 S 3-23-64	--	7.8	2800	377	92	150	6	0	251	432	709	0.0	0.4	8049
			18.81	7.57	6.52	0.15		4.11	8.99	19.99				30737
1N/22W-21B 3 S 3-23-64	--	8.2	1000	108	43	91	5	0	246	390	37	0.0	0.2	29
			5.39	3.54	3.96	0.13		4.03	8.12	1.04				892
			41	27	30	1		31	62	8				447
1N/22W-21J 4 S 5-21-64	--	7.1	11000	1489	486	665	16	0	49	749	4599	0.0	0.2	825
			74.30	39.97	28.91	0.41		0.80	15.59	129.69				5718
1N/22W-21L 1 S 10-25-63	--	7.7	4700	629	173	267	10	0	185	404	1660	0.0	0.2	4942
			31.39	14.23	11.61	0.26		3.03	8.41	46.81				8033
			55	25	20			5	14	80				3872
7- 6-64	--	7.8	4545	411	203	253	9	0	29	284	1440	12.0	0.4	3256
			20.51	16.69	11.00	0.23		0.48	5.91	40.61				2283
			42	34	23			1	13	86				2960
														1861
														2630

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reoxygenation						Mineral constituents in parts per million								
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silicate	TDS	Total Evapo.	Evapo.
Date sampled				Ca	Mg	K	Na	CO ₃	HCO ₃	SO ₄	Cl	F	B	SiO ₂	SO ₂		CO ₂	CO ₂ Computed
OXNARD PLAIN HYDRO SUBUNIT OXNARD HYDRO SUBAREA																		
1N/22W-21L 1 S 9-17-64	66	7.0	4.300	4.61	15.3	30.5	9	0	2.48	286	14.79	0.0	0.01	0.02	--	2708	1780	
1N/22W-21L 2 S 3-20-64	68	11.3	24.00	23.00	12.58	13.26	0.23	0.1	5.95	5.12	41.71	12	8.7			2707		
1N/22W-22A 1 S 12-26-63	6.7	7.8	10.90	5.14	0.99	11.96	0.64	0.83	2.75	25	0	1.34	3.94	0.0	0.2	0.48	13	1414
1N/22W-22C 1 S 11-19-63	--	7.5	11.90	6.24	4.03	4.9	100	4	0.64	3	6	2.79	11.11	1.9	7.5			307
1N/22W-22C 1 S 11-19-63	--	7.5	11.90	6.24	4.03	4.9	100	4	0.64	3	6	2.79	11.11	1.9	7.5			307
1-2-26-63	--	8.1	14.50	7.24	4.19	5.1	107	4	0	221	3.95	92	0.0	0.6	0.75	29	958	514
5-21-64	--	8.0	15.00	7.24	4.45	5.8	110	5	0	3.62	8.22	2.59	0.0	0.6	0.75	29	904	
1N/22W-22F 2 S 12- 7-63	--	7.5	15.10	8.18	4.11	5.0	118	5	0	2.39	8.27	4.09	0.0	0.6	0.78	27	1056	572
1N/22W-22H 1 S 10-23-63	66	8.0	11.00	5.14	3.78	4.77	0.78	0.13	4.00	4.00	4.00	1.45	0.0	0.6	0.78	27	995	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reaction				Mineral constituents in parts per million			
				Ca	Mg	K	Na	Potassium	Sodium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride
Date sampled								CO ₃	HCO ₃	CO ₃	NO ₃	F	SiO ₂	Total Evap 180°C	Hardness as CaCO ₃
OXNARD PLAIN HYDRO SUBUNIT OXNARD HYDRO SUBAREA															
1N/22W-22H 1 S 10-24-63	66	7.9	1140	1.31 6.54	4.1 3.37	93 0.10	4 29	0 4.13	252 7.70	3.70 2.37	84 0.0	0 0.0	0.75 0.73	26 27	916 956
10-25-63	66	7.8	1190	1.30 6.49	4.4 3.62	95 0.10	4 29	0 4.08	249 7.60	365 2.48	88 0.0	0 0.4	0.73 0.73	27 27	874 874
10-28-63	66	7.8	1150	1.36 6.79	4.1 3.37	95 4.13	4 0.10	0 4.05	247 7.47	359 2.65	94 0.0	0 0.4	0.83 0.83	27 27	956 944
1N/22W-22H 2 S 11-26-63	--	8.0	1436	1.33 6.64	4.9 4.03	108 4.70	6 0.15	0 2.79	170 7.54	362 5.25	186 0.07	1.5 0.02	0.64 0.64	38 38	508 990
7- 6-64	66	7.7	1965	2.16 10.78	7.3 6.00	112 4.87	6 0.15	0 2.37	232 7.27	365 10.63	349 0.04	2.5 0.0	0.74 0.74	37 37	840 1570
8-18-64	--	7.8	2200	2.30 11.48	6.8 5.59	130 5.65	4 0.10	0 3.80	232 7.34	365 50	397 11.20	0 0.0	0.85 0.85	--	854 1572
9-15-64	65	7.8	2400	2.48 12.38	8.1 6.66	145 6.30	6 0.15	0 3.77	230 7.70	370 13.99	496 13.99	0 0.0	0.62 0.62	--	1309 1291
1N/22W-22H 3 S 11-27-63	67	7.9	1998	1.73 8.63	6.5 5.35	200 8.70	10 0.26	0 1.36	83 17.70	850 3.75	133 0.31	19.0 16	0.6 1	28 1	1460 1550

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in						parts per million equivalents per million percent reactivity				Mineral constituents in parts per million			
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Nitrite	Boron	Fluoride	Sulfate	Total hardness as CaCO ₃
Date sampled	in °F	in °C	mg/l	Ca	Mg	No	K	CO ₃	HCO ₃	SO ₄	Cl	F	B	SiO ₂	Equiv 105°C	Combed	
OXNARD PLAIN HYDRO SUBUNIT																	
OXNARD HYDRO SUBAREA																	
1N/22W-22H 4 S 11-27-63	68	9.3	3953	3.68	10.8	52.3	2.5	4.0	214.1	166	6.2	1.0	1.30	1.2	345.7	1363	
				18.36	8.88	22.74	0.64	0.27	0.66	44.58	0.10						
1N/22W-22H 5 S 12- 5-63	64	7.8	1351	14.3	4.5	105	5	0	271	386	1.0	0.8	0.70	3.6	337.9		
				7.14	3.70	4.57	0.13	1	1	4.44	0.04	3.02					
				46	24	29	1	29	52	52	19						
7- 3-64	68	7.9	1368	14.6	51	93	5	0	254	374	1.36	0.2	0.64	3.7	1010	574	
				7.29	4.19	4.04	0.13	1	1	4.16	7.79	3.84					
				47	27	26	1	26	49	49	24						
9-16-64	64	7.8	1700	1.58	5.9	120	5	0	246	373	216	0.0	0.04	0.47	--	1100	637
				7.88	4.85	5.22	0.13	1	1	4.03	7.77	6.09					
				44	27	29	1	23	43	43	34						
1N/22W-22J 1 S 12-26-63	--	8.0	1390	74	5.5	170	5	0	252	396	112	0.0	0.6	0.78	26	1014	411
				3.69	4.52	7.39	0.13	1	1	4.13	8.24	3.16					
				23	29	47	1	27	53	53	20						
5-21-64	--	8.0	1200	92	6.3	90	4	0	259	389	52	0.0	0.6	0.67	26	900	489
				4.59	5.18	3.91	0.10	1	1	4.25	8.10	1.47					
				33	38	28	1	31	59	59	11						
1N/22W-22J 2 S 12-26-63	--	7.8	1280	1.32	3.9	97	4	0	257	395	52	0.0	0.6	0.71	27	954	490
				6.59	3.21	4.22	0.10	1	1	4.21	8.22	1.47					
				47	23	30	1	30	59	59	11						
5-21-64	--	7.7	1500	103	91	101	4	0	251	375	188	0.0	0.4	0.67	24	1172	632
				5.14	7.48	4.39	0.10	1	1	4.11	7.81	5.30					
				30	44	26	1	24	45	45	31						

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity value						Mineral constituents in parts per million						
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Sulfate	Chloride	Nitrate	Boron	Silica	Total hardness °dS	Equiv 80°C	Equiv 105°C
Date sampled	C _o	Mg	Na	K	HCO ₃	SO ₄	Cl	NO ₃	F	B	S _o 2					
OXNARD PLAIN HYDRO SUBUNIT																
IN/22W-22J 3 S 10-21-63	66	7.9	1340	140 6.99	47 3.87	104 0.10	0	248 4.06	342 7.12	147 4.15	0.0	0.4	0.75	27	1014	543
12-26-63	--	8.0	1680	157 7.83	51 4.19	115 0.10	0	253 4.15	367 7.64	192 5.41	0.0	0.6	0.75	23	934	
IN/22W-22J 5 S 10-16-63	66	7.4	1130	80 3.99	68 2.8	100 4.35	0	257 4.10	410 8.54	53 1.49	0.0	0.6	0.77	28	1076	601
10-17-63	66	7.9	1180	132 6.59	43 3.54	95 0.13	4	0 4.11	251 7.79	85 2.40	0.0	0.6	0.73	28	1035	479
10-18-63	66	7.8	1150	150 7.49	32 2.63	94 0.09	4	0 4.13	374 7.89	85 2.54	0.0	0.6	0.73	28	871	507
10-21-63	66	7.9	1170	137 6.84	41 3.37	93 0.04	4	0 4.10	250 7.89	90 2.54	0.0	0.6	0.27	27	970	506
IN/22W-22K 1 S 1-21-64	--	7.8	1280	60 2.99	71 4.76	110 0.03	1	0 8.36	510 0.81	129 3.64	0.0	0.6	0.75	28	901	511
IN/22W-22K 2 S 12-3-63	68	8.0	2639	285 14.22	98 8.06	137 5.96	7 0.18	0 228	359 7.47	370 0.60	0.0	0.2	0.33	18	722	442
				50 50	28 21			0 13	16.89 27	129 4	0.0	0.6	0.7	38	716	1115
															1970	1115
															1640	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents					parts per million equivalents per miller reactance value					Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Total hardness °dH	Evap 80°C	Evap 105°C
Date sampled				Ca	Mg	Na	K	CO ₂	HCO ₃	SO ₄	Cl	NO ₃	F	B				
OXNARD PLAIN HYDRO SUBUNIT																		
1N/22W-22K 2 S	64	8.0	1400	157	52	101	5	0	244	389	170	0.0	0.6	0.78	26	1106	606	
5-19-64				7.83	4.28	4.39	0.13	4.00	8.10	4.79	28							
				4.7	26	26	1	24	4.8									
7- 3-64	68	7.9	1277	139	43	90	5	0	254	378	100	0.0	1.0	0.66	30	960	524	
				6.94	3.94	3.91	0.13	4.16	7.87	2.82	19							
				4.8	24	27	1	28	53									
8-18-64	--	7.9	1320	106	63	105	4	0	262	372	102	0.0	0	0.58	--	918	524	
				5.29	5.18	4.57	0.10	4.29	7.75	2.88	19							
				35	34	30	1	29	52									
9-15-64	65	7.9	1500	123	56	107	5	0	250	386	123	0.0	0.4	0.65	--	1000	538	
				6.14	4.01	4.65	0.13	4.10	8.04	3.47	22							
				4.0	30	30	1	26	52									
1N/22W-22K 3 S	66	7.5	6394	517	268	970	7	0	349	310	11.0	1.4	3.70	4.1	6105	2394		
12- 3-63				25.80	22.04	42.18	0.18	5.72	73.72	8.74	18							
				29	24	47		6	83	10								
1N/22W-22L 1 S	--	7.4	5150	721	233	217	10	0	181	461	1879	0.0	0.4	0.95	25	4420	2759	
11-0-63				35.98	19.16	9.44	0.26	2.97	9.60	52.99	81							
				55	30	15		5										
12-26-63	--	7.3	5400	667	260	215	9	0	189	452	1826	0.0	0.2	0.81	23	4760	2735	
				33.28	21.38	9.35	0.23	3.10	9.41	51.49	80							
				52	33	15		5										
1N/22W-22L 2 S	--	7.5	1760	191	50	120	4	0	244	374	252	0.0	0.4	0.78	27	1352	683	
12-26-63				9.53	4.11	5.22	0.10	4.00	7.79	7.11	38							
				50	22	28	1	4.1										

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES ORAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent restance						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fu-	Boron	TDS	Total hardness as Evap 18°C	
Date sampled				Ca	Mg	K	Na	CO ₃	HCO ₃	SO ₄	Cl	NH ₃	F	B	S-02	Calcd Co ₂	
OXNARD PLAIN HYDRO SUBUNIT																	
1N/22W-22N 2 S 5-20-64	--	7.1	1200	123	39	97	5	0	226	371	67	8.6	1.0	0.79	28	982	468
1N/22W-22N 5 S 5-19-64	--	7.6	2500	6.14	3.21	4.22	0.13	31	3.70	7.72	1.89	0.14	1	1	24	851	1093
1N/22W-22N 6 S 6- 3-64	6.8	7.2	9901	1356	245	117	5	0	233	397	559	0.0	0.4	0.78	24	1934	1600
7- 2-64	--	7.4	9900	6.7-66	12.23	9.62	0.13	21	3.82	8.27	15.76	30	57			7510	5394
1N/22W-22N10 S 5-19-64	--	6.6	7000	1403	4.88	323	16	0	198	658	3500	5.0	0.8	0.76	29	6474	5384
1N/22W-22R 4 S 6- 3-64	--	7.6	1347	6.6-69	4.42	2.96	0.13	27	14.04	0.41	3.25	13.70	98.70	0.08	--	6598	3606
1N/22W-22R 5 S 12-26-63	66	8.1	1280	5.99	1.20	36	4	0	199	665	3755	62.0	0.1	0.85	--	1031	544
1N/22W-23C 1 S 5-19-64	--	8.0	1100	4.44	4.45	89	4	0	258	370	44	0.0	0.4	0.86	33	888	465
				33	37	3.87	0.10	29	4.23	7.70	1.24	32	58	9		816	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reactance value				Mineral constituents in parts per million					
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfur dioxide	Total Evap 80°C Evap 105°C	
Date sampled				CO ₃	Mg	Na	K	CO ₃	HCO ₃	SO ₄	NO ₃	F	B	S _O ₂	CaCO ₃		
OXNARD PLAIN HYDRO SUBUNIT OXNARD HYDRO SUBAREA																	
1N/22W-23C 1 S 6- 4-64	--	7.7	1129	6.24	3.45	86	5	0	264	373	39	1.5	1.0	0.74	3.7	870	485
				4.6	25	3.74	0.13	4.33	7.77	1.10	0.02					840	
					28	28	1	33	59	8							
7- 2-64	8.1	1160	6.09	6.33	3.96	0.10	4.43	270	377	4.3	0.0	0.6	0.63	--	--	886	471
				23	47	3.96	0.10	33	7.85	1.21							
1N/22W-23E 2 S 12-10-63	6.4	8.1	1290	6.44	3.78	46	100	0	271	389	81	2.0	0.9	0.72	3.5	937	511
				44	26	4.35	0.13	4.44	8.10	2.28	0.03						
					30	30	1	30	55	15							
6.4	8.1	1280	2.40	8.39	4.48	102	6	0	252	352	128	0.0	0.6	0.84	3.5	1012	540
				40	54	4.48	0.15	4.13	7.33	3.61							
				16	29	1	27	49	24								
5-19-64	6.7	7.9	1346	1.33	52	93	5	0	222	362	138	0.2	0.8	0.64	3.6	899	
				64	44	4.28	0.04	0.13	3.64	7.54	3.89					975	546
					28	27	1	24	50	26							
7- 3-64	--	7.8	1730	2.57	12	110	3	0	258	360	248	0.0	0.4	0.71	--	930	
				82	0.99	4.78	0.08	4.23	7.50	6.99							
					69	5	26	23	40	37							
8-18-64	6.8	7.9	1550	1.51	54	112	5	0	249	377	180	0.0	0.4	0.67	--	1166	599
				53	44	4.87	0.13	4.08	7.85	5.08							
					26	29	1	24	46	30							
9-16-64	6.2	7.7	8333	4.65	3.91	1525	10	0	415	4935	393	16.0	0.7	6.80	29	8290	2770
				23	19	66.31	0.26	6.80	102.75	11.08	0.26						
1N/22W-23E 3 S 12-10-63																7976	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (II)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million						
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfur dioxide	Total hardness as CaCO ₃
Date sampled				CO ₃	Mg	No	K	CO ₃	HCO ₃	SO ₄	Cl	F	B	SO ₂		
OXNARD PLAIN HYDRO SUBUNIT OXNARD HYDRO SUBAREA																
1N/22W-23J 1 S 7- 2-64	69	7.9	1230	5.59	4.03	92	4	0	256	395	50	0.0	0.6	0.72	--	902
1N/22W-23K 1 S 6- 4-64	1108	7.7	1108	5.59	3.21	85	4	0	4.20	8.22	1.41	0.9	0.58	29	829	
1N/22W-23N 2 S 11-20-63	1020	7.9	1020	5.39	4.4	108	4.5	0	221	344	61	1.4	0.02	812	440	
1N/22W-25J 1 S 5-20-64	68	7.9	870	1.05	3.54	31	4.3	0	293	352	47	3.1	0.4	0.77	785	
1N/22W-26D 4 S 11-21-63	1240	7.8	1240	6.69	3.78	134	4.6	0	263	197	43	0.0	0.2	0.60	864	
5-20-64	1400	7.6	1400	6.74	4.74	100	4	0	4.31	4.10	1.21	0.0	0.2	0.60	455	
1N/22W-26J 2 S 5-20-64	1100	7.6	1100	5.74	3.78	95	4.6	0.08	283	449	58	4.4	0.07	27	864	
1N/22W-26M 1 S 3-19-64	68	8.0	1479	7.53	4.44	151	54	0	4.64	9.35	1.64	1.3	0.02	0.70	24	524
				4.44	4.87	31	5	0.13	30	60	10	0.0	0.6	0.62	22	1034
				26	29	31	1	0.13	42	44	14	0.0	0.6	0.62	22	966
									313	257	61	0.0	0.6	0.62	26	981
									5.13	5.35	1.72	0.0	0.6	0.62	26	730
									4.2	4.4	14	0.0	0.6	0.62	26	730
									255	361	185	0.5	0.8	0.66	36	774
									4.18	7.52	5.44	0.01	0.01	0.01	36	426
									29	1	31				36	1190
															36	599
															36	1031

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaeration value						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfur		
Date sampled	Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	Ca	SO ₂	CaCO ₃			
OXNARD PLAIN HYDRO SUBAREA																	
1N/22W-26Q 1 S 5-20-64	70	7.4	1100	9.2	5.4	9.7	0.7	0	25.7	3.75	4.2	3.1	0.2	0.49	29	872	452
1N/22W-27A 2 S 5-20-64	69	7.7	2000	4.59	4.44	4.22	0.18	4.01	7.81	1.9	0.05	0.05	0.05	0.05	0.05	826	883
6-17-64	--	7.3	2328	24.7	9.1	12.0	6	0	25.6	3.79	3.90	0.0	0.4	0.77	22	1548	1351
1N/22W-27B 2 S 11-20-63	--	6.9	5200	7.72	21.5	10	0.26	--	24.2	3.93	4.60	--	0.7	0.73	--	1665	991
5-20-64	--	7.3	7300	10.22	28.8	27.0	1.2	0	20.5	4.90	18.72	0.0	0.1	0.78	28	4538	2812
1N/22W-27B 4 S 10-23-63	66	7.9	1150	1.11	5.0	11.3	6	0	3.36	10.20	52.79	0.0	0.1	0.78	28	3706	3737
3-18-64	67	7.9	1125	1.12	4.3	9.1	5	0	24.6	4.27	5.5	0.0	0.2	0.88	26	5844	4844
1N/22W-27F 2 S 11-20-63	--	7.4	1010	9.0	5.2	9.3	0.13	4.03	8.89	1.55	0.0	0.2	0.63	29	964	913	
				4.49	4.28	4.04	0.15	4.31	7.47	1.27	0.04	0.5	0.46	38	875	457	
				35	33	31	1	33	57	10					851	801	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity value				Mineral constituents in parts per million equivalents per million percent reactivity value										
				Calcium C _o	Magnesium M _g	Sodium N _a	Potassium K	Carbon dioxide CO ₂	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Sulfur dioxide S-O ₂	Total Evap 105°C	Total hardness as CaCO ₃	
OXNARD PLAIN HYDRO SUBUNIT																		
OXNARD HYDRO SUBAREA				U03AO				U03AI				SANTA CLARA-CALLEGUAS HYDRO UNIT U0300						
1N/22W-27J 2 S 6- 3-64	--	7.6	2076	206 10-28	76 6-25	154 6-70	7 0.18	267 4-38	397 8-27	366 10-32	1-7 0-03	0-84 0-0	0-64 0-73	37 28	1538 1377	827		
1N/22W-27R 1 S 10-24-63	--	7.6	1100	102 5-09	43 3-54	90 3-91	4 0.10	0 4-61	281 6-70	43 1-21	0-0 0-0	0-66 0-73	28 28	838	432			
3-19-64	66	8.0	1000	90 4-49	41 3-37	88 3-83	4 0.10	0 3-87	231 3-79	331 6-89	4-7 1-33	0-0 0-1	0-64 0-70	26 30	771			
1N/22W-27R 2 S 10-24-63	--	8.2	960	70 3-69	56 4-61	89 3-87	5 0.13	0 0.13	267 4-38	315 6-56	4-3 1-21	2-1 0-03	0-64 0-70	26 30	808	393		
3-19-64	68	8.0	1068	113 5-64	37 3-04	87 3-78	5 0.13	0 3-04	321 4-64	315 6-75	4-3 1-30	2-1 0-04	0-64 0-70	26 30	741			
1N/22W-28B 1 S 10-23-63	64	7.0	11200	1246 62-8	395 32-48	1280 55-65	20 0.51	0 3-47	212 16-61	798 128-51	4-557 1-11	0-0 0-04	0-64 0-70	30 30	818	405		
3-16-64	68	7.0	7424	712 35-53	299 4-4	486 21-13	14 0.36	0 0.18	11 7-58	364 73-32	3-7 0-06	0-5 0-06	0-80 0-08	30 30	793			
7- 6-64	--	5.4	7576	636 31-74	309 25-41	613 26-65	15 0.38	0 0.08	5 9-54	2580 72-76	5-0 0-08	0-66 1-12	0-66 0-88	3 3	5389 4488	3008		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity value						Mineral constituents in parts per million parts per million								
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfur dioxide	T.D.S. Total Evap. 0°C Evap. 0°C Compound		
Date sampled	C	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂		Ec _{CO₂}				
SANTA CLARA-CALLELAGAS HYDRO UNIT U0300																		
OXNARD PLAIN HYDRO SUBUNIT OXNARD HYDRO SUBAREA				U03A0	U03A1													
1N/22W-28B 1 S 8-20-64	--	5.3	7800	806	185	700	14	0	5	444	2677	2.0	0.1	0.76	--	4790	2774	
				4.0•22	15.21	30•44	0.36	0.08	9.24	75•49	0.03						4831	
				4.7	18	35			11									
9-16-64	68	5.3	7500	669	221	850	18	0	5	847	2480	0.0	0.1	0.82	--		5087	2580
				33•38	18•18	36•96	0.46	0.08	17•63	69•94							5088	
				38	20	42	1		20	80								
1N/22W-28C 1 S 3-31-64	67	7.7	11000	970	323	1475	25	0	196	724	4220	0.0	0.1	0.98	19	9442	3751	
				48•40	26•56	64•13	0.64	3•21	15•07	119•00								
				35	19	46		2	11	87								
7- 6-64	--	6.0	10881	812	406	1225	21	0	10	596	4050	5.0	0.7	0.84	0	7630	3698	
				4.0•52	33•39	53•26	0.54	0•16	12•41	114•21	0.08							
				32	26	42			10									
8-20-64	--	6.2	10800	992	278	1170	17	0	22	543	3684	0.0	0.1	0.90	--	8680	3621	
				4.9•50	22•86	50•87	0.43	0.36	11•21	103•89								
				40	18	41			10	90								
9-17-64	64	7.2	11000	830	365	1930	20	0	128	1336	4571	0.0	0.1	10.00	--	11850	3575	
				41•42	30•02	83•92	0.51	2•10	27•32	128•90								
				27	19	54		1	18	81								
1N/22W-28H 2 S 5-20-64	--	8.2	800	54	27	87	4	0	123	268	46	0.0	0.4	0.65	8	636	369	
				2•69	2•24	3•78	0.10		2•02	5•58	1•30							
				24	42	34	1		23	63	15							
1N/22W-29A 4 S 10-14-63	68	7.8	1160	124	30	97	7	0	246	389	41	0.9	0.2	0.42	32	874	433	
				6•19	2•47	4•22	0.18	4•03	8•10	1•16	0.01							
				47	19	32	1		30	61	9							

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	TDS	Total hardness Evap 10°C
Date sampled				Na	Mg	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	B	F	SiO ₂		CaCO ₃ Computed	
OXNARD PLAIN HYDRO SUBUNIT																	
1N/22W-29A 4 S 3- -64	64	8.0	1138	114 5-69 44	36 2-96 23	96 4-17 32	10 0-26 2	0 3-98 30	243 7-79 60	41 1-16 9	8.0 0-13 1	0-50	30	846	433		
1N/22W-25C 1 S 11- 7-63	--	8.0	1136	121 6-04	33 2-71	88 3-83	--	--	287 4-70 6-60	317 1-27	45 1-27	--	0-63	--	829	438	
1-10-64	--	7.7	1060	120 5-99	38 47	79 3-13 25	4 0-10 27	0 4-10 1	285 4-67 6-75	324 1-30 53	46 1-30 10	0-0 0-44 0-78	30	810	456		
5- 5-64	--	8.0	1147	117 5-84	30 2-47	90 3-91	--	--	285 4-67 6-41	308 1-27	45 1-27	--	0-60	--	782	416	
1N/22W-25G 1 S 1-10-64	--	7.7	780	74 3-69 42	18 1-48 17	80 3-48 40	4 0-10 1	0 5-70 1	348 5-70 66	77 1-35 18	48 1-69 16	0-0 0-6 0-73	29	824	259		
5-20-64	--	8.0	800	60 2-99	28 3-08 26	80 3-48 39	3 0-08 1	0 5-33 1	325 5-33 62	77 1-69 19	60 1-69 20	0-0 0-8 0-56	29	498	265		
1N/22W-36K 1 S 11-19-63	--	7.6	1650	142 7-09	77 6-33 35	153 6-65 31	6 0-15 1	0 4-31 1	263 4-31 21	317 6-60 33	328 9-25 46	1-8 0-2 0-03	23	1308	672		
4- 1-64	--	7.6	3000	220 10-98 18-31	79 6-50 18	415 18-04 50	10 0-26 1	0 4-49 13	274 4-49 13	780 8-77 25	1-6 22-00 62	0-2 0-03	28	2482	875		
															2090		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in°F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reactivity				Mineral constituents in parts per million			
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica
Date sampled				Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	Si-O	Total hardness as CaCO ₃
OXNARD PLAIN HYDRO SUBUNIT															
1N/22W-36K 1 S 4-13-64	--	--	2078	--	--	--	--	--	--	--	--	36.5	--	--	--
6-15-64	--	8.0	1900	156	77	168	6	0	199	313	406	3.0	0.4	0.74	--
1N/22W-36K 3 S 11-19-63	--	6.7	3000	309	85	300	6	0	224	279	918	0.0	0.2	0.80	18
1N/22W-36L 1 S 11-19-63	--	7.2	1625	144	66	150	6	0	331	230	326	0.0	0.4	0.65	31
6-15-64	--	7.0	8600	729	252	1100	20	0	311	558	3209	1.0	0.1	0.84	--
1N/22W-36N 1 S 11-1-63	--	8.1	850	50	23	100	4	0	337	62	62	0.0	0.6	0.65	36
2N/21W-29P 3 S 8-27-64	6.7	8.0	1272	109	46	113	4	0	261	349	81	0.0	0.3	0.48	--
2N/22W-12E 1 S 8-17-64	--	7.6	1898	221	82	132	5	0	356	735	85	1.3	0.8	0.65	--

SANTA CLARA-CALLEGUAZ HYDRO UNIT U0300

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaeration value								Mineral constituents in parts per million					
				Colium C.O.	Magnesium M.g.	Sodium Na	Potassium K	Chloride Cl	Bicarbonate HCO ₃	Sulfate SO ₄	Nitrate NO ₃	Fluoride F	Boron B	Silicate SiO ₂	Total Evap. 105°C	Calculated	Total TDS
OXNARD PLAIN HYDRO SUBUNIT OXNARD HYDRO SUBAREA																	
2N/22W-12G 1 S 11- 1-63	--	7.7	2123	220	82	174	7	0	306	823	111	3.1	1.0	0.90	33	1700	887
				10.98	6.74	7.57	0.18		5.02	17.13	3.13	0.05				1605	
				4.3	2.6	30	1		20	68	12						
2N/22W-14P 2 S 12-11-63	--	7.5	1707	180	68	125	--	--	326	579	71	27.0	0.6	0.72	--		729
				8.98	5.59	5.44			5.04	12.05	2.00	0.44					1260
				4.5	28	27			27	61	10	2					1212
3-18-64	--	7.9	1728	177	60	129	--	--	337	554	68	32.0	0.6	0.76	--		689
				8.83	4.93	5.61			5.52	11.53	1.92	0.52					
				4.6	25	29			28	59	10	3					
6-11-64	--	8.0	1678	164	62	122	--	--	330	531	67	28.0	0.7	0.82	--		665
				8.18	5.10	5.30			5.41	11.06	1.89	0.45					
				4.4	27	29			29	59	10	2					
9-22-64	--	8.0	1703	166	57	132	--	--	348	518	64	23.0	0.6	0.75	--		649
				8.28	4.69	5.74			5.70	10.78	1.80	0.37					
				4.4	25	31			31	58	10	2					
2N/22W-15Q 1 S 8-14-64	--	7.6	1698	170	67	143	5	0	322	605	69	27.0	0.8	0.65	--		1380
				8.48	5.51	6.22	0.13		5.28	12.60	1.95	0.44					
				4.2	27	31	1		26	62	10	2					
2N/22W-15Q 3 S 11- 5-63	6.8	7.8	1758	164	67	147	6	0	271	622	74	50.0	0.9	0.64	33	1332	685
				8.18	5.51	6.39	0.15		4.04	12.95	2.09	0.81					
				4.0	27	32	1		22	64	10	4					
2N/22W-16K 1 S 11- 7-63	--	7.9	1382	122	44	125	--	--	260	453	52	6.0	0.8	0.54	--		486
				6.09	3.62	5.44			4.06	9.43	1.47	0.10					
				4.0	24	36			28	62	10	1					

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents				parts per million equivalent percent reactivity value				Mineral constituents in parts per million					
				Calcium	Magnesium	Sodium	Potassium	Boron	Chloride	Nitrate	Fluoride	Boron	Sulfate	Total hardness	Extrad 105°C	Extrad 105°C	
Date sampled				mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	Combined CO ₂	
OXNARD PLAIN HYDRO SUBUNIT U03AO																	
2N/22W-16K 1 S 5- 5-64	--	8.0	1387	117	4.0	132	--	--	258	444	53	6.0	0.8	0.59	--	457	
2N/22W-17Q 1 S 11-15-63	--	7.7	1942	188	77	188	6	0	293	716	113	65.0	0.9	0.60	38	958 920	
2N/22W-20Q 1 S 11-13-63	--	7.3	1658	167	60	132	--	--	257	563	95	14.0	0.6	0.70	--	786	
5- 7-64	--	7.6	1518	149	48	126	--	--	4.21	11.72	2.68	0.23	1	--	--	1520 1537	
2N/22W-21D 3 S 10-24-63	66	7.8	1795	167	72	160	5	0	227	687	97	38	0.7	0.70	35	664 570	
2N/22W-23B 1 S 12-11-63	--	7.3	1918	199	63	150	--	--	270	680	92	26.0	0.8	0.91	--	1233 1159	
3-18-64	--	8.1	1716	9.93	5.18	6.52	--	--	4.43	14.16	2.59	0.42	2	--	--	1374 1344	
6-11-64	--	7.7	1683	161	64	124	--	--	286	559	72	47.0	0.7	0.86	--	756 690	
				8.03	5.26	5.39	27	28	4.69	11.64	2.03	0.76	4	--	--	1210 1179	
				4.44	4.46	24	30	29	25	61	11	3	36.0	0.8	0.75	--	1282 1139
									4.61	11.39	2.00	0.58	11	--	--	657	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reacionce value						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Feldspar	Boron	Silicate	TDS _{25°C}	Total hardness
Date sampled				N g	N g	N g	N g	CO ₃	HCO ₃	SO ₄	Cl	N O ₃	F	B	S O ₂	C O ₂	
OXNARD PLAIN HYDRO SUBUNIT																	
2N/22W-23B 1 S 9-23-64	--	7.8	1662	165	8.23	4.69	5.30	--	--	284	538	67	31.0	0.7	0.72	--	123.9
2N/22W-23B 2 S 12-11-63	--	7.4	1707	178	8.88	5.02	5.35	123	--	290	569	72	27.0	0.7	0.78	--	112.1
3-18-64	--	8.1	1690	167	8.33	5.35	5.39	124	--	296	564	71	38.0	0.7	0.85	--	126.7
6-10-64	--	7.8	1690	161	8.03	5.35	5.57	128	--	293	554	69	33.0	0.7	0.81	--	117.4
9-23-64	--	7.9	1665	161	8.03	4.77	5.39	124	--	293	554	69	33.0	0.7	0.81	--	126.0
2N/22W-23C 2 S 12-11-63	--	7.3	1525	157	7.83	4.85	4.48	103	--	253	540	64	9.0	0.8	0.77	--	117.6
3-18-64	--	7.9	1523	155	7.73	4.52	4.78	110	--	4.15	11.24	1.80	0.15	0.7	0.78	--	128.2
6-11-64	--	7.7	1467	147	7.24	4.93	4.48	60	103	262	524	62	16.0	0.7	0.89	--	115.6

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per million percent reactivity					Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfide	Total Evap 80°C	Total Evap 105°C	Hardness as CaCO ₃
OXNARD PLAIN HYDRO SUBUNIT U03AO																		
2N/22W-23C 2 S 9-23-64	--	8.0	1552	151	55	119	--	--	270	511	6.1	16.0	0.7	0.80	--	114.9	603	
2N/22W-23C 3 S 12-11-63	--	7.4	1398	144	4.52	5.17	30	4.43	10.64	1.72	0.26	2	10	10.47	--	104.7		
3-18-64	--	8.0	1396	142	52	108	--	--	269	485	58	--	0.6	0.74	--	100.01	574	
6- 9-64	--	7.6	1412	146	4.7	103	--	--	275	442	56	--	0.6	0.77	--	91.6	532	
9-23-64	--	7.8	1443	143	3.87	4.48	25	4.49	9.64	1.61	2.0	0.5	0.54	--	108.7	558		
2N/22W-23G 1 S 12-11-63	--	--	1703	197	59	123	--	--	274	463	57	0.03	0.03	0.05	--	95.4		
3-18-64	--	7.7	1767	182	57	124	--	--	271	576	78	2.20	0.7	0.93	--	106.9	54.2	
6- 9-64	--	7.6	1550	151	60	110	--	--	260	533	64	13.0	0.9	0.94	--	118.3	73.5	

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value				Mineral constituents in parts per million					
				Magnesium	Sodium	Potassium	Chloride	Boron	Sulfate	Nitrate	Fluoride	Silica	Total Evap 180°C
Date sampled				Na	K	CO ₃	HCO ₃	SO ₄	NO ₃	F	B	SiO ₂	SiO ₂
OXNARD PLAIN HYDRO SUBUNIT OXNARD HYDRO SUBAREA													
2N/22W-23G 1 S	--	7.7	1678	170 8.48	57 4.69	122 5.30	--	270 4.43	545 11.35	72 2.03	29.0 0.47	0.99	--
9-23-64				46	25	29		24	62	11	3		1259 1129
2N/22W-23G 2 S	--	7.5	1707	185 9.23	56 4.61	136 5.91	--	274 4.49	624 12.99	81 2.28	14.0 0.23	0.82	--
12-11-63				47	23	30		22	65	11	1		1241 1232
3-18-64	--	8.0	1690	167 8.33	56 4.61	129 5.61	--	278 4.56	562 11.70	75 2.12	25.0 0.40	0.79	--
6- 9-64	--	7.8	1608	151 7.53	58 4.77	125 5.44	--	276 4.52	533 11.10	71 2.00	20.0 0.32	0.75	--
9-23-64	--	7.8	1678	167 8.33	56 4.61	129 5.61	--	274 4.60	562 11.62	71 2	20.0 0.32	0.75	--
2N/22W-23J 1 S	--	8.3	1675	174 8.68	66 5.43	133 5.76	6 0.15	26 0.87	573 11.93	74 2.09	25.0 0.45	0.75	--
11- 5-63				43	27	29	1	4	61	11	2		
2N/22W-23K 1 S	--	7.5	1888	187 9.33	69 5.67	132 5.74	--	306 5.02	600 12.49	84 2.37	48.0 0.77	0.93	--
9-23-64				45	27	28		24	60	11	4		1456 1272
2N/22W-23K 4 S	--	7.6	1275	131 6.54	36 2.96	100 4.35	--	258 4.23	403 8.39	49 1.38	0.64	0.69	--
12-11-63													899

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity						Mineral constituents in parts per million							
				Magnesium	Calcium	Sodium	Potassium	Boron	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfur dioxide	TDS Evap 109°C	Total hardness Evap 109°C	
Date sampled				Mg	Ca	K	Na	HCO ₃	SO ₄	Cl	NO ₃	F	B	S	O ₂	CaCO ₃	
OXNARD PLAIN HYDRO SUBUNIT U03A0																	
2N/22W-23K 4 S 3-18-64	--	8.2	1288	6.49	130	33	100	4.35	--	260	382	4.8	--	0.4	0.65	--	905
6- 9-64	--	7.9	1298	6.34	127	37	100	4.35	--	257	397	4.9	--	0.3	0.50	--	943
9-23-64	--	8.1	1318	6.44	129	39	103	4.48	--	260	398	4.9	--	0.4	0.69	--	483
2N/22W-23D 1 S 1-18-64	--	7.8	1550	9.38	188	59	115	4	0	305	571	73	24.0	0.4	0.68	20	1286
2N/22W-25R 2 S 8-20-64	6.7	7.1	1858	10.68	214	79	132	5	0	5.00	11.89	2.06	0.39	0.39	0.80	--	1537
2N/22W-26F99 S 10-28-63	--	7.3	1526	4.9	165	49	119	--	--	296	735	91	2.0	0.9	0.80	--	860
11-29-63	--	7.6	1484	7.98	160	49	118	--	--	4.85	15.30	2.57	0.03	0.03	0.86	--	1405
1-27-64	--	7.4	1636	8.43	169	54	128	--	--	4.38	10.84	1.86	0.06	0.06	0.86	--	601

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity						Mineral constituents in parts per million parts per million					
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Baron	Sulfate	T.D.S.
Date sampled				No.	Mg	No.	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	B	F	CaCO ₃
OXNARD PLAIN HYDRO SUBUNIT															
OXNARD HYDRO SUBUNIT															
2N/22W-26F99 S	--	7.5	1498	169	47	119	--	--	274	509	67	11.0	0.6	0.78	--
2-24-64	--	8.0	1421	141	5.87	5.17	30	26	4.49	10.60	1.89	0.18	0.18	0.78	1110
5- 4-64	--	8.0	1421	141	4.6	119	--	--	267	481	59	11.0	0.7	0.69	1058
7-20-64	--	7.5	1457	147	3.78	5.17	32	27	4.38	10.01	1.66	0.18	0.18	0.69	541
8-17-64	--	7.6	1528	150	4.4	114	--	--	263	461	60	10.0	0.7	0.82	1057
11- 7-63	--	7.8	1414	152	5.4	119	--	--	4.31	9.60	1.69	0.16	0.16	0.82	990
2N/22W-27L 1 S	--	8.2	1400	141	4.09	102	0	282	502	65	15.0	0.7	0.88	--	544
5-21-64	--	8.0	1400	141	4.09	102	0	4.62	10.45	1.83	0.24	0.24	0.88	--	1058
2N/22W-30P 1 S	6.8	7.6	1602	184	5.02	4.52	0.15	5.39	9.76	1.72	0.37	0.37	0.68	30	966
6- 4-64	5.4	7.9	2250	9.18	5.10	5.17	0.10	31	57	10	2	2	0.68	30	1045
2N/23W- 5L 1 S	5.4	7.9	13-32	4.7	2.6	2.6	1	317	4.90	71	8.2	0.6	0.77	22	1136
2-14-64	5.4	7.9	13-49	4.7	2.6	2.6	1	5.20	10.20	2.00	0.13	0.13	0.77	22	1049
2N/22W-30P 1 S	6.8	7.6	1602	62	119	4	0	263	5.63	88	41.0	0.8	0.58	37	1069
2N/23W- 5L 1 S	5.4	7.9	13-49	3.37	10.44	0.20	0	372	11.72	2.48	0.66	0.66	0.58	37	1300
2-14-64	5.4	7.9	13-49	12	38	1	0	6.10	10.31	10.97	0.04	0.04	0.71	29	1229
															835
															1656

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reductance value				Mineral constituents in parts per million parts per million							
				Cerium	Magnesium	Sodium	Potassium	Carbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Total hardness
Date sampled				CO ₃	K	Na	Ca	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	CaCO ₃
OXNARD PLAIN HYDRO SUBAREA U03AO															
2N/23W-5L 1 S 8-20-64	--	7.3	2400	192 9•58	7•90 33	0•23 38	9	252 10•96	0•0	4•90 10•20	4•10 11•56	0•0 0•2	0•88 0•88	--	1736 875
2N/23W-5P 1 S 10-24-63	64	7.5	4098	394 19•66	142 11•68	0•23 31	9	320 13•91	0	24•2 3•97	535 11•14	10•0 29•89	0•4 0•16	0•85 4•2	1648 2780
	--	7.4	4100	525 2620	81 6•66	0•23 15•87	9	365 15•87	0	338 5•54	534 11•12	0•0 32•20	0•1 23	1•00 66	2632 3060
	--	8-20-64			54 14	32	11	32 11	19	376 6•16	493 10•26	4•5 2•03	0•6 0•07	0•70 1130	1644 2823
2N/23W-13F 1 S 10-29-63	--	8•3	1582	152 7•58	50 4•11	0•15 7•39	6	170 7•39	19	376 6•16	493 10•26	4•5 2•03	0•6 0•07	0•70 40	585 1130
	--	7.7	1628	150 7•49	45 3•70	0•23 6•61	1	152 3•70	--	399 6•54	444 9•24	76 2•14	--	0•3 11	1193 1107
2N/23W-14L 1 S 11-26-63	--	7.4	1567	53 7•63	160 4•36	0•15 6•96	0	390 36	502 1•15	502 6•39	78 10•45	2•6 2•20	0•60 0•04	0•68 42	560 1120
2N/23W-14M 1 S 10-24-63	68	7.4			58 8•18	110 4•77	--	--	265 4•34	552 11•49	65 1•83	0•7 0•23	0•7 10	600 1190	
2N/23W-23C 1 S 12-11-63	--	7.5	1548	164 46	53 27	0•17 27	--	--	281 4•61	524 10•91	63 1•78	0•77 0•27	--	--	648 1170
	--	8•1	1566	158 7•88	53 4•36	119 5•17	--	--	281 4•61	524 10•91	63 1•78	0•77 0•27	0•81 10	--	1095 1157
	--	3-18-64			50 25	30 25									612 1074

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million									
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silicate	TDS	Total hardness	Evap 105°C	
Date sampled	M g	M g	M g	M g	M g	M g	M g	M g	M g	M g	M g	M g	M g	M g	M g	M g	M g	Computed	COCO ₃
OXNARD PLAIN HYDRO SUBUNIT OXNARD HYDRO SUBAREA																			
2N/23W-23C 1 S	--	7.9	1562	153	59	110	--	--	281	511	63	20.0	0.7	0.79	--	1200	624		
6-11-64			7.63	4.85	4.78	28		4.61	10.64	1.78	0.32					1056			
9-23-64	--	8.0	1639	160	62	122	--	--	305	521	64	23.0	0.7	0.81	--	1214	655		
			7.98	5.10	5.30	29		5.00	10.85	1.80	0.37					1103			
2N/23W-25H 1 S	--	7.4	1497	151	42	136	5	0	268	490	71	13.0	1.0	0.47	--	1122	549		
2-14-64			7.53	3.45	5.91	0.13	1	4.39	10.20	2.00	0.21					1041			
			4.4	20	35	1		26	61	12	1					1110	544		
2N/23W-25M 1 S	--	7.5	1460	147	43	135	5	0	295	480	63	3.5	1.0	0.55	--	1023			
2-14-64			7.34	3.54	5.87	0.13	1	4.84	9.99	1.78	0.06					1060	537		
			4.3	21	35	1		29	60	11						1039			
6- 4-64	67	7.3	1377	141	45	133	5	0	288	482	54	1.5	0.8	0.52	35	987	486		
			7.04	3.70	5.78	0.13	1	4.72	10.04	1.52	0.02					953			
2N/23W-25O 1 S	--	7.6	1295	127	41	120	4	0	259	442	52	2.8	0.8	0.47	36	980	479		
6- 4-64			6.34	3.37	5.22	0.10	1	4.25	9.20	1.47	0.05								
			4.2	22	35	1		28	61	10									
2N/23W-36A 1 S	--	7.5	1322	131	37	119	--	--	262	435	56	--	0.6	0.48	--				
11-22-63			6.54	3.04	5.17				4.29	9.06	1.58								
5- 5-64	--	7.9	1352	125	39	119	--	--	258	432	56	--	0.6	0.54	--	988	473		
						5.17				4.23	8.99	1.58							

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity						Mineral constituents in parts per million							
				Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfate	TDS	Hardness	Total Evap (°C)
Date sampled	M g	N a	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	S O ₂						CaCO ₃
OXNARD PLAIN HYDRO SUBUNIT																	
2N/23W-36A 1 S 6- 4-64	6.8	8.0	1270	1.26 6.29	4.1 3.37	0.10 0.34	0	259 4.25	4.32 8.99	50 1.41	0.8 0.03	0.50	37	976	4.83		
PLEASANT VALLEY HYDRO SUBAREA																	
1N/20W- 6J 1 S 7- 8-64	--	7.2	1850	7.0 3.49	125 10.28	3 9.13	0.08	0	391 6.41	377 7.85	305 8.60	0.1 0.05	0.47	--	1434	6.89	
1N/21W- 3L 1 S 11- 8-63	--	7.5	988	9.7 4.84	28 2.30	82 3.57	--	--	245 4.02	247 5.14	60 1.69	--	0.3 0.3	0.30	--	1286	
5- 5-64	--	7.8	1084	9.5 4.74	25 2.06	97 4.22	--	--	255 4.18	260 5.00	70 1.97	0.3 0.05	0.3 0.18	0.26	--	704	357
1N/21W-13L 1 S 12- 5-63	6.7	8.0	959	9.2 4.59	32 2.63	84 3.65	3 0.08	0	256 4.20	246 5.12	58 1.64	0.6 0.04	0.25	4.3	660	361	
1N/21W-15G 1 S 12- 5-63	--	8.1	1164	7.7 3.84	42 2.9	130 43	4 1	0	327 5.36	198 4.12	125 3.53	0.4 0.02	0.32	5.5	656	713	
1N/21W-22L 1 S 8-25-64	--	7.4	1590	6.7 3.34	70 5.76	182 7.91	6 0.15	0	354 5.80	268 5.58	209 5.89	0.0 0.32	0.3 0.34	0.53	--	794	365
																1061	455
																977	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity						Mineral constituents in parts per million							
				Coldium Ca	Magne- sium Mg	Sodium Na	Potass- ium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chloride Cl	Ni- trate NO ₃	Fuo- rate F	Boron B	Sili- cate SiO ₂	Total hardness CaCO ₃	
OXNARD PLAIN HYDRO SUBUNIT PLEASANT VALLEY HYDRO SUBAREA U03A0																	
2N/20W-20E 2 S 10- 7-63	70	8.2	1470	76	87	7.15	3.79	5.87 0.08	0	503	232	140	8.5 0.14	0.20	6.7	981	547
2N/20W-30C 1 S 2- 4-64	--	8.1	2200	199	70	305	6	0	48	4.83 28	3.95 23	140	0.5 0.0	0.20	6.7	997	997
2N/20W-30H 1 S 2- 4-64	74	7.7	1800	90	60	257	6	0	345	774 16.11	234 6.60	140	0.0 0.0	0.20	6.7	1798	785
2N/20W-300 1 S 12-10-63	--	8.0	1754	117	108	100	1	0	444	7.28 1.44	358 10.10	140	17.0 0.27	0.20	6.7	1790	1790
2N/20W-33R 2 S 10- 8-63	--	7.4	1648	98	101	100	1	0	436	54 1.12	322 9.08	140	17.0 0.05	0.20	6.7	1246	471
2N/21W-19A 2 S 11-27-63	--	7.4	1526	159	50	128	--	--	285	540 11.24	63 1.78	140	4.0 0.06	--	--	1044	1044
5- 4-64	--	7.9	1672	158	62	132	--	--	281	576 11.99	73 2.06	140	0.7 0.11	0.80	--	1042	661
2N/21W-23R 2 S 10- 3-63	68	7.4	1284	128	37	104	4	0	261	277 5.77	92 1.32	140	82.0 1.32	0.38	4.2	909	650
																1146	1146
																1084	1084
																1293	1293
																1148	1148
																472	472
																895	895

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity								Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfur dioxide	TDS
Date sampled																
OXNARD PLAIN HYDRO SUBUNIT PLEASANT VALLEY HYDRO SUBAREA U03A0																
2N/21W-23R 3 S 10- 3-63	74	7.8	964	4.7	2.035	1.89	5.44	0.13	0	126	237	88	2.6	0.4	0.32	5
				24	19	55	1		2.07	4.93	2.48	26	0.04			613
2N/21W-33A 1 S 12- 5-63	68	7.5	2427	248	9.7	210	3	0	261	934	200	4.9	0.9	0.28	55	595
				12.38	7.98	9.13	0.08		4.08	19.45	5.64	19	0.08			1952
2N/21W-35K 1 S 3-17-64	--	6.9	2681	139	5.7	220	6	0	283	477	204	469.0	0.6	0.76	40	1881
				6.94	4.69	9.57	0.15		4.64	9.93	5.75	7.56				1680
2N/21W-36N 4 S 12- 6-63	--	7.7	1842	173	6.8	170	5	0	276	547	200	6.0	0.7	0.50	47	582
				8.63	5.59	7.39	0.13		4.02	11.39	5.64	26	0.10			1350
				40	26	34	1									712
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reactivity value				Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	TDS
Date sampled				C O	M g	N o	K	C O ₃	H C O ₃	S O ₄	N O ₃	C l	B	F	Equiv 180°C Equiv 105°C Computed	Total hardness CaCO ₃
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																
SANTA PAULA HYDRO SUBUNIT SANTA PAULA HYDRO SUBAREA				U03B0	U03B1											
2N/22W-1M 1 S	--	7.9	1140	104	42	82	4	0	140	400	57	0.5	0.7	0.35	--	856
4-16-64				5.19	3.45	3.57	0.10		2.29	8.33	1.61	0.01				432
2N/22W-2K 7 S	6.8	7.0	1146	129	28	29	1		19	68	13					759
8-19-64				6.44	2.88	3.65	0.10		4.74	6.89	1.07	0.02				466
2N/22W-3M 3 S	--	7.8	1150	128	35	84	4	0	289	331	38	1.0	0.3	0.43	--	856
2-13-64				6.39	2.88	4.52	0.10		3.7	54	8					765
2N/22W-12D 1 S	--	7.8	1790	167	60	182	--		305	357	50	9.3	0.2	0.42	21	920
11-7-63				8.33	4.93	7.91	23		5.00	7.43	1.41	0.15				464
5-4-64	--	7.9	1695	151	52	162	--		36	53	10	1				859
3N/21W-9R 3 S	6.8	8.0	1060	129	29	88	2	0	288	646	73	4.0	0.6	0.58	--	1357
10-23-63				6.44	2.38	3.83	0.05		5.28	13.45	2.06	0.06				1291
3N/21W-12E 7 S	--	7.8	26446	318	116	200	6	0	455	1028	69	4.0	0.5	0.64	--	591
8-28-64				15.87	9.54	8.70	0.15		7.46	21.40	4.62	0.37				1239
3N/21W-15C 2 S	7.0	7.9	1200	124	62	91	3	0	208	483	64	23.0	0.9	0.64	24	2220
10-22-63				6.19	5.10	3.96	0.08		3.41	10.06	1.80	0.29				1272
				4.0	3.3	2.6	1		2.2	6.3	14	1				2104
										22	65	12				2104
																1120
																565
																971

TABLE E-

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reactivity value				Mineral constituents in parts per million					
				Calcium C. O.	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silicon Si-O ₂		
SANTA PAULA HYDRO SUBUNIT SANTA PAULA HYDRO SUBAREA																	
3N/21W-16K 1 S 8-14-64	66	7.7	1698	206	66	116	4	0	349	605	83	2.8	0.8	0.65	--		
3N/21W-16K 2 S 10-24-63	68	7.6	1700	220	74	5.04	0.10	5.72	12.60	2.34	0.05	--	1389	786	1256		
3N/21W-21B 1 S 11-22-63	--	7.6	2000	192	60	163	4	0	377	688	117	2.7	0.2	0.79	22		
5- 4-64	--	7.9	2073	198	57	200	--	--	367	708	96	2.0	0.7	1.12	--		
8-14-64	67	7.6	2010	198	70	195	6	0	405	707	104	1.0	0.8	1.12	--		
3N/21W-21F 1 S 8-14-64	--	7.8	1924	148	74	212	6	0	6.64	14.72	2.93	0.02	--	1625	783	1482	
3N/21W-29B 1 S 10-29-63	--	7.8	2297	238	75	6.09	0.15	359	692	90	0.0	0.9	1.45	--	1533	675	
5- 6-64	--	7.7	2263	199	78	220	--	--	481	785	143	--	0.7	1.20	--	1401	903
				9.93	6.41	9.57			4.26	687	168	--	0.7	1.20	--	1824	818
									6.98	14.30	4.74				--	1779	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	TDS	Total hardness
Date sampled																	
SANTA PAULA HYDRO SUBUNIT																	
SANTA PAULA HYDRO SUBAREA																	
3N/21W-31E 1 S 11-29-63	--	7.8	2586	245	72	297	--	--	404	1007	109	--	0.7	0.88	--	2043	908
5- 4-64	--	7.9	2352	274	79	190	--	--	362	20.97	3.07	--	0.6	0.70	--	2008	1009
3N/22W-11H 1 S 10-23-63	74	8.1	2800	148	131	455	7	0	415	1086	284	15.0	1.0	1.10	20	2542	909
3N/22W-23F 2 S 10-23-63	71	7.9	1800	207	59	210	9	0	537	625	94	5.8	0.2	0.65	28	2352	760
3N/22W-36K 4 S 8-20-64	--	7.7	1272	160	45	73	4	0	309	386	64	1.0	0.7	0.36	--	983	584
4N/20W-34R 1 S 11-22-63	--	7.3	1311	144	46	90	--	--	289	405	53	25.0	0.7	0.79	--	886	886
5- 4-64	--	8.0	1306	7.19	3.78	3.91	26	4.74	8.43	1.49	0.40	0.40	0.40	0.40	3	907	549
				4.8	25	26	31	56	10	3						94.1	526
				1.38	4.4	8.7	--	--	289	370	55	25.0	0.8	0.75	--	863	
				6.89	3.62	3.78	4.74	7.70	1.55	54	11						

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity						Mineral constituents in parts per million						
				Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	TDS	Total hardness as CaCO ₃
Date sampled				K	Na	Si	CO ₂	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	CaCO ₃	
SANTA CLARA CALLEGUAS HYDRO UNIT U0300																
4N/21W-18C 1 S 10-10-63	60	7.4	800	100 4.99 58	29 2.38 27	1.26 15	0.03	0	245 4.02 4.6	202 4.21 4.8	16 0.45 5	2.2 0.04	0.02	0.08	16	538 516 369
SANTA PAULA HYDRO SUBUNIT SISAR HYDRO SUBAREA																
U03B0	U03B2															

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity						Mineral constituents in parts per million					
				Ca	Mg	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica
Date sampled				Na	K	Na	Na	CO ₃	HCO ₃	SO ₄	Cl	F	SiO ₂	Evap 10°C	Total hardness as CaCO ₃
SESPE HYDRO SUBUNIT FILLMORE HYDRO SUBAREA															
3N/20W-3N 2 S	--	7.2	1492	164	5.02	4.22	—	—	—	292	4.97	51	45.0	0.85	--
11-22-63				8.18	4.7	29	24	4.79	28	10.35	1.44	0.73	0.73	--	1120
										60	8	4	4	1060	1060
5-4-64	--	8.1	1372	144	52	86	—	—	284	4.15	4.2	51.0	0.9	0.77	--
				7.19	4.28	3.74	25	4.65	30	8.64	1.18	0.82	5	574	574
3N/20W-5C 2 S	6.7	7.5	1020	139	53	58	2	0	320	337	29	62.0	0.4	0.17	20
10-10-63				6.94	4.36	2.52	0.05	5.24	7.02	0.02	1.00	1.00	7	930	930
				50	31	18	37	50	50	6	7	7	7	565	565
3N/20W-5D 1 S	6.9	7.4	920	123	52	38	2	0	333	236	27	74.0	0.4	0.17	19
10-10-63				6.14	4.28	1.65	0.05	5.46	4.91	0.76	1.19	1.19	8	824	824
				51	35	14	44	44	40	6	10	10	10	521	521
3N/20W-5D 2 S	--	7.9	920	115	47	46	2	0	179	309	34	58.0	0.4	0.21	20
10-10-63				5.74	3.87	2.00	0.05	2.93	26	6.43	0.96	0.94	8	838	838
				4.49	3.3	17	57	57	57	0.9	0.9	0.9	8	481	481
3N/20W-9F 1 S	7.2	8.2	3000	429	152	277	9	0	412	1611	177	84.0	1.0	1.14	23
10-10-63				21.41	12.50	12.04	0.23	6.75	33.54	4.99	1.35	1.35	3	720	720
				46	27	26	14	14	72	11	3	3	3	735	735
3N/21W-12C 1 S	--	8.0	2000	260	79	175	2	0	412	783	106	45.0	0.4	0.71	16
10-23-63				12.97	6.50	7.61	0.05	6.75	16.30	2.99	0.73	0.73	3	1670	1670
				48	24	28	25	61	61	11	3	3	3	1670	1670
3N/21W-12D 1 S	--	7.9	2900	365	88	247	2	0	284	1245	160	24.0	0.4	0.29	15
10-23-63				18.21	7.24	10.74	0.05	4.65	25.92	4.51	0.39	0.39	1	2286	2286
				50	20	30	13	73	73	13	13	13	13	2286	2286

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				Parts per million equivalents per million percent reductance value				Mineral constituents in			
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica
Date sampled				mg	mg	mg	mg	mg	mg	mg	mg	mg	mg	mg	mg
SESPE HYDRO SUBUNIT FILLMORE HYDRO SUBAREA															
3N/21W-12D 2 S 10-23-63	--	7.4	3300	4.93	9.6	3.35	0.15	0	4.03	1533	277	34.0	0.4	0.47	16
3N/21W-12H 1 S 11-19-63	--	7.6	1217	24.60	7.90	14.57	31	6.61	31.92	7.81	0.55	1	3120	1626	2989
5-4-64	--	8.0	1231	1.25	4.3	8.6	--	14	6.61	1.17	1	11.0	0.9	0.60	--
4N/20W-12G 1 S 10-11-63	66	7.9	1080	9.8	31	3.74	28	4.23	8.02	1.16	1	8.02	0.18	0.66	--
4N/20W-23N 1 S 10-10-63	66	8.1	600	4.89	2.55	4.17	0.05	0	152	299	84	44.0	0.6	1.86	18
4N/20W-23D 1 S 10-11-63	63	7.8	940	3.79	1.64	1.83	0.05	2.49	6.23	2.37	0.71	2.37	0.71	0.66	--
4N/20W-24D 1 S 10-23-63	--	7.3	1200	5.59	3.21	1.96	0.05	0	108	283	76	67.0	0.4	0.72	19
4N/20W-25C 1 S 11-15-63	--	7.3	1390	5.5	3.0	1.8	0.05	1.77	5.89	2.14	1.08	2.14	1.08	0.28	19

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	TDS	Total dissolved solids
Date sampled				CO ₃	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	B	F	SiO ₂	CaCO ₃	
SESP-E HYDRO SUBUNIT FILLMORE HYDRO SUBAREA																	
4N/20W-25C 1 S 5- 8-64	--	7.3	1348	145	48	75	--	--	302	369	55	18.0	0.9	0.90	--	94.5	560
4N/20W-25D 1 S 10-29-63	64	8.3	1049	90	20	120	3	14	163	203	133	0.7	1.4	3.50	15	86.0	307
4N/20W-25J 1 S 10-11-63	63	7.4	1960	184	135	128	6	0	506	696	95	58.0	0.4	0.81	25	6.75	1015
4N/20W-26D 1 S 10-10-63	67	7.7	800	113	27	50	2	0	257	211	36	34.0	0.4	0.38	17	6.84	393
4N/20W-34K 1 S 6-12-64	--	7.5	1678	211	49	84	--	--	443	345	97	72.0	0.3	0.50	--	6.17	729
4N/20W-36P 2 S 2- 6-64	--	7.7	1230	130	59	94	5	0	276	477	37	16.0	0.8	0.47	21	104.8	567
4N/20W-36Q 1 S 5-15-64	61	7.4	1308	127	53	95	5	0	272	415	46	9.0	0.9	0.48	--	97.6	535
				6.34	4.36	4.13	0.13	28	4.46	8.64	1.30	0.15	1			88.5	
SANTA CLARA-CALLEGIAS HYDRO UNIT U0300																	
				U03C0	U03C1												
4N/20W-25C 1 S 5- 8-64	--	7.3	1348	145	48	75	--	--	4.95	7.68	1.55	0.29	2				
4N/20W-25D 1 S 10-29-63	64	8.3	1049	90	20	120	3	14	34	53	11						
4N/20W-25J 1 S 10-11-63	63	7.4	1960	184	135	128	6	0	4.08	2.67	4.23	3.75	0.01				
4N/20W-26D 1 S 10-10-63	67	7.7	800	113	27	50	2	0	4.15	2.17	3.8	3.4					
4N/20W-34K 1 S 6-12-64	--	7.5	1678	211	49	84	--	--	4.21	4.39	1.02	0.55	10				
4N/20W-36P 2 S 2- 6-64	--	7.7	1230	130	59	94	5	0	4.52	9.93	1.04	0.26					
4N/20W-36Q 1 S 5-15-64	61	7.4	1308	127	53	95	5	0	4.52	9.93	1.04	0.26	2				
				6.34	4.36	4.13	0.13	28	4.46	8.64	1.30	0.15	1				

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent readability				Mineral constituents in parts per million						
				Calcium C o	Magnesium M g	Sodium N a	Potassium K	Bicarbonate H C O 3	Carbonate C O 3	Sulfate S O 4	Nitrate N O 3	Fluoride F	Boron B	Silica S i O 2	T.O.S. Evap 180°C Computed	Total hardness as CaCO ₃		
PIRU HYDRO SUBUNIT																		
4N/17W-22D 1 S 8-20-64	--	7.7	3500	160	7.98	2.47	30	780	3	0	184	1560	284	0.0	2.0	2.38	--	2682
4N/18W-3K 1 S 5-27-64	--	7.8	1350	127	6.34	4.36	18	33.91	0.08	3.02	32.48	8.01	18	--	1.1	1.17	--	2912
4N/18W-3Q 2 S 10-17-63	66	7.4	1700	196	5.6	4.61	53	100	--	--	315	4.34	37	--	1.1	1.17	--	535
5-27-64	--	7.9	1846	156	7.78	5.92	72	179	5	0	683	4.61	60	4.4	0.6	1.24	27	990
4N/18W-19P 2 S 1- 9-64	60	7.8	1400	168	8.38	8.39	36	7.78	26	0.13	11.19	9.60	1.69	0.07	--	1.31	--	720
4N/18W-19R 1 S 11-19-63	--	7.6	1728	191	9.53	6.00	73	11.19	--	--	636	4.56	62	4.0	0.8	1.31	--	1337
5- 4-64	--	8.1	1634	164	8.18	5.10	62	11.19	--	--	10.42	9.49	1.05	0.06	--	1.31	--	686
4N/18W-27B 1 S 10-17-63	62	7.7	3300	373	18.61	14.72	44	28	28	25	4.90	13.03	1.55	0.95	0.9	1.45	--	1272
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																		
4N/17W-22D 1 S 8-20-64	--	7.7	3500	160	7.98	2.47	30	780	3	0	184	1560	284	0.0	2.0	2.38	--	523
4N/18W-3K 1 S 5-27-64	--	7.8	1350	127	6.34	4.36	18	33.91	0.08	3.02	32.48	8.01	18	--	1.1	1.17	--	990
4N/18W-3Q 2 S 10-17-63	66	7.4	1700	196	5.6	4.61	53	100	--	--	315	4.34	37	--	1.1	1.17	--	535
5-27-64	--	7.9	1846	156	7.78	5.92	72	179	5	0	683	4.61	60	4.4	0.6	1.24	27	1368
4N/18W-19P 2 S 1- 9-64	60	7.8	1400	168	8.38	8.39	36	7.78	26	0.13	11.19	9.60	1.69	0.07	--	1.31	--	720
4N/18W-19R 1 S 11-19-63	--	7.6	1728	191	9.53	6.00	73	11.19	--	--	636	4.56	62	4.0	0.8	1.31	--	1337
5- 4-64	--	8.1	1634	164	8.18	5.10	62	11.19	--	--	10.42	9.49	1.05	0.06	--	1.31	--	686
4N/18W-27B 1 S 10-17-63	62	7.7	3300	373	18.61	14.72	44	28	28	25	4.90	13.03	1.55	0.95	0.9	1.45	--	1272
U0301																		
4N/17W-22D 1 S 8-20-64	--	7.7	3500	160	7.98	2.47	30	780	3	0	184	1560	284	0.0	2.0	2.38	--	523
4N/18W-3K 1 S 5-27-64	--	7.8	1350	127	6.34	4.36	18	33.91	0.08	3.02	32.48	8.01	18	--	1.1	1.17	--	990
4N/18W-3Q 2 S 10-17-63	66	7.4	1700	196	5.6	4.61	53	100	--	--	315	4.34	37	--	1.1	1.17	--	535
5-27-64	--	7.9	1846	156	7.78	5.92	72	179	5	0	683	4.61	60	4.4	0.6	1.24	27	1368
4N/18W-19P 2 S 1- 9-64	60	7.8	1400	168	8.38	8.39	36	7.78	26	0.13	11.19	9.60	1.69	0.07	--	1.31	--	720
4N/18W-19R 1 S 11-19-63	--	7.6	1728	191	9.53	6.00	73	11.19	--	--	636	4.56	62	4.0	0.8	1.31	--	1337
5- 4-64	--	8.1	1634	164	8.18	5.10	62	11.19	--	--	10.42	9.49	1.05	0.06	--	1.31	--	686
4N/18W-27B 1 S 10-17-63	62	7.7	3300	373	18.61	14.72	44	28	28	25	4.90	13.03	1.55	0.95	0.9	1.45	--	1272
U0302																		
4N/17W-22D 1 S 8-20-64	--	7.7	3500	160	7.98	2.47	30	780	3	0	184	1560	284	0.0	2.0	2.38	--	523
4N/18W-3K 1 S 5-27-64	--	7.8	1350	127	6.34	4.36	18	33.91	0.08	3.02	32.48	8.01	18	--	1.1	1.17	--	990
4N/18W-3Q 2 S 10-17-63	66	7.4	1700	196	5.6	4.61	53	100	--	--	315	4.34	37	--	1.1	1.17	--	535
5-27-64	--	7.9	1846	156	7.78	5.92	72	179	5	0	683	4.61	60	4.4	0.6	1.24	27	1368
4N/18W-19P 2 S 1- 9-64	60	7.8	1400	168	8.38	8.39	36	7.78	26	0.13	11.19	9.60	1.69	0.07	--	1.31	--	720
4N/18W-19R 1 S 11-19-63	--	7.6	1728	191	9.53	6.00	73	11.19	--	--	636	4.56	62	4.0	0.8	1.31	--	1337
5- 4-64	--	8.1	1634	164	8.18	5.10	62	11.19	--	--	10.42	9.49	1.05	0.06	--	1.31	--	686
4N/18W-27B 1 S 10-17-63	62	7.7	3300	373	18.61	14.72	44	28	28	25	4.90	13.03	1.55	0.95	0.9	1.45	--	1272

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalent reaction value				Mineral constituents in parts per million			
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica
Date sampled				Na	K	CO ₃	HCO ₃	SO ₄	Cl	F	B	SiO ₂			
PIRU HYDRO SUBAREA															
4N/18W-27B 2 S 11-19-63	--	7.4	2883	304	111	308	--	--	437	1252	123	52.0	0.96	--	2413 2367
4N/19W-25C 2 S 10- 1-63	60	7.4	1400	180	67	107	4	0	275	635	54	13.0	0.8	1.20	24 1276
4N/19W-25M 2 S 11-19-63	--	7.9	1637	177	74	97	--	--	4.51	13.22	1.52	0.21	--	--	725 1221
5-15-64	--	7.7	1548	162	70	97	--	--	232	643	51	42.0	0.9	1.02	--
4N/19W-26H 1 S 8-19-64	62	8.1	1374	131	65	98	4	0	239	579	48	35.0	1.0	0.85	--
4N/19W-33J 1 S 10-24-63	63	7.6	2500	369	117	180	6	0	3.92	12.05	1.35	0.56	--	--	693 1187 1110
4N/19W-33M 2 S 11-26-63	--	7.7	1102	114	40	80	--	--	254	366	22	--	1.1	0.60	--
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300															
U0301															
4N/18W-27B 2 S 11-19-63	--	7.4	2883	15.17	9.13	13.39	36	--	7.16	26.07	3.47	0.84	2	--	1216 2367
4N/19W-25C 2 S 10- 1-63	60	7.4	1400	8.98	5.51	4.65	0.10	1	2.51	13.22	1.52	0.21	1	--	1221 1276
4N/19W-25M 2 S 11-19-63	--	7.9	1637	8.83	6.09	4.22	2.2	20	6.9	13.39	1.44	0.68	4	--	74.7 1257 1200
5-15-64	--	7.7	1548	8.08	5.76	4.22	2.3	22	6.7	12.05	1.35	0.56	8	--	1187 1110
4N/19W-26H 1 S 8-19-64	62	8.1	1374	6.54	5.35	4.26	0.10	1	3.65	10.85	1.18	0.13	1	--	1087 595
4N/19W-33J 1 S 10-24-63	63	7.6	2500	369	117	180	6	0	3.81	11.29	10.1	165.0	0.6	1.37	22 2348 1403
4N/19W-33M 2 S 11-26-63	--	7.7	1102	114	40	80	--	--	2.85	23.51	2.85	2.66	8	--	2278 830 449
U0302															
4N/19W-33J 1 S 1-10-64	--	8.2	1060	119	46	78	4	0	2.36	4.14	23	8.7	0.6	0.68	20 820 486
4N/19W-33M 2 S 11-26-63	--	7.7	1102	5.69	3.78	3.29	0.10	1	3.87	8.62	0.65	0.14	5	--	79.3 830 449

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				Parts per million equivalents per percent resistance value				Mineral constituents in parts per million					
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silicate	TDS Evap 80°C	
Date sampled	in °F	Mg Mg	Ca Ca	K Na	CO ₃ HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	SiO ₂	SiO ₂	SiO ₂	SiO ₂	TDS Evap 10°C Computed	Total hardness as CaCO ₃
PIRU HYDRO SUBUNIT PIRU HYDRO SUBAREA																	
4N/19W-33M 2 S 5- 4-64	--	7.9	1092	1.06 5.29	3.9 3.21	77 28	--	--	228 3.74	357 7.43	21 0.59	8.0 0.13	0.70	--	799 721	425	
5N/18W-15P 1 S 6- 5-64	--	7.9	1253	1.02 5.09	4.4 3.62	108 4.70	--	--	209 3.43	4.17 8.68	4.7 1.33	--	1.3	2.23	--	877	
5N/18W-33G 2 S 5-27-64	--	7.4	3197	1.760 17.96	1.16 9.54	332 14.44	--	--	451 7.39	1594 33.19	28 0.79	2.0 0.03	0.6	0.38	--	1376 2742 2655	
SANTA CLARA-CALLEGIAS HYDRO UNIT U0300																	
U0300 U03D1																	
4N/19W-33M 2 S 5- 4-64	--	7.9	1092	1.06 5.29	3.9 3.21	77 27	--	--	228 3.74	357 7.43	21 0.59	8.0 0.13	0.70	--	799 721	425	
5N/18W-15P 1 S 6- 5-64	--	7.9	1253	1.02 5.09	4.4 3.62	108 4.70	--	--	209 3.43	4.17 8.68	4.7 1.33	--	1.3	2.23	--	877	
5N/18W-33G 2 S 5-27-64	--	7.4	3197	1.760 17.96	1.16 9.54	332 14.44	--	--	451 7.39	1594 33.19	28 0.79	2.0 0.03	0.6	0.38	--	1376 2742 2655	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity					Mineral constituents in parts per million										
				Calcium	Magnesium	Sodium	Potassium	Chloride	Bicarbonate	Sulfate	Nitrate	Fluoride	Boron	Silicate	Total hardness Evap 105°C				
UPPER SANTA CLARA R HYDRO SUBUNIT U03E0																			
EASTERN HYDRO SUBAREA				1355	1.21	63	103	0	380	257	108	80.0	0.6	0.41	30	1015			
4N/16W-14E 2 S 3-26-64	67	7.4	6.04	5.18	0.48	0.05	28	0	6.23	5.35	3.19	1.29	8			561			
ACTION HYDRO SUBAREA				U03E5	1.23	1.65	0.05	0	215	70	35	4.8	0.2	0.18	25	366			
4N/13W-10Q 1 S 4-16-64	--	7.5	5.20	3.04	1.23	1.65	0.05	0	3.52	1.46	0.99	0.08	1			214			
4N/13W-12C 4 S 4-16-64	64	7.3	4.90	5.8	1.2	3.3	2	0	196	59	30	8.3	0.2	0.23	25	357			
5N/12W-28F 1 S 4-16-64	--	7.7	770	77	27	49	3	0	176	62	35.0	0.2	0.09	26	346				
5N/12W-30K 1 S 4-16-64	--	7.6	735	3.84	2.22	2.13	0.08	0	2.88	1.29	3.58	0.56				194			
5N/13W-25C 1 S 4-16-64	--	7.7	750	4.6	2.7	2.6	1	0	35	16	4.3	7				324			
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																			
WESTERN HYDRO SUBAREA				U03E1	6.04	5.18	0.48	0.05	28	5.35	3.19								
4N/16W-14E 2 S 3-26-64	67	7.4	1.21	63	103	0	2	0	380	257	108	80.0	0.6	0.41	30	952			

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity value						Mineral constituents in parts per million									
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Nitrate	Chloride	Fluoride	Boron	Silicate				
Date sampled				C O	H C O ₃	C O ₃	S O ₄	C l	N O ₃	F	B	Equiv. B/C	Total hardness	Equiv. H/C	Total hardness				
CALLEGUAS-CONEJO HYDRO SUBUNIT U03F0 WEST LAS POSAS HYDRO SUBAREA U03F1																			
IN/21W-20N 5 S	--	7.9	1124	114	5.69	3.13	4.13	0.13	5	0	359	282	4.7	11.0	0.6	39	830	441	
6- 5-64				44	24	32	32	1		5.88	5.87	1.33	0.18	1					
IN/21W-20P 2 S	--	8.2	1146	116	5.79	3.62	3.87	0.10	4	0	281	357	4.6	3.0	0.7	0.60	4.3	809	878
6- 5-64				43	27	29	1		4.61	7.43	1.30	0.05	10						471
IN/21W-21N 1 S	71	8.0	1022	104	5.19	2.71	3.70	0.08	85	0	275	281	4.7	1.6	0.5	0.36	4.3	841	841
6- 5-64				44	23	32	1		4.51	5.85	1.33	0.03	38						395
IN/21W-31C 2 S	--	7.7	1550	88	4.39	6.91	4.78	0.15	110	6	293	207	2.0	0.2	0.61	--			734
6-15-64				27	43	29	1		4.80	4.31	7.36	0.03	29						565
ZN/21W- 86 1 S	72	7.7	944	73	2.64	2.30	3.74	0.05	86	2	301	133	6.7	15.0	0.6	0.30	--		903
4-21-64				37	24	38	1		4.93	2.77	1.89	0.24	28						553
ZN/21W- 8L 1 S	--	8.4	1063	88	4.39	2.88	4.43	0.08	102	3	277	207	6.5	9.0	0.5	0.25	37	700	364
8-20-64				37	24	38	1		4.54	4.31	1.83	0.15	39						297
EAST LAS POSAS HYDRO SUBAREA U03F2																			
ZN/19W- 6R 2 S	--	6.9	3521	425	21.21	12.25	13.04	0.13	300	5	559	1260	354	37.0	0.8	1.28	4.0	3045	1674
2-27-64				45	26	28			9.16	26.23	9.98	0.60	20						2847

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per cent reactivity				parts per million				Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Bicarbonate	Carbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	TDS	Total hardness as Evap 80°C	Total hardness as Evap 105°C	CaCO ₃ Computed	
Date sampled				Mg C a	M g	N a	K	HCO ₃	CO ₃	SO ₄	Cl	NO ₃	F	B	Si O ₂					
CALLEGUAS-CONEJO HYDRO SUBUNIT U03F0 EAST LAS POSAS HYDRO SUBAREA U03F2																				
2N/20W-9H 1 S 8-19-64	73	8.3	54.5	4.5	2.45	1.48	1.83	0.05	2	0	158	96	28	12.0	0.4	0.10	--	372	187	
2N/20W-10D 1 S 8-18-64	--	7.9	52.8	5.7	1.7	3.0	2	0	192	59	31	0.79	0.19	3	1.4	0.4	0.07	--	321	321
2N/20W-16C 1 S 2-26-64	--	7.8	2278	214	1.40	1.30	0.05	23	1	3.15	1.23	0.87	0.34	6	22	1.6	0.07	--	377	212
3N/20W-34G 1 S 8-18-64	77	8.1	492	52	5.84	10.00	0.15	40	22	37	0	305	689	252	1.5	0.7	0.84	39	312	827
ARROYO SANTA ROSA HYDRO SUBAREA U03F3																				
2N/19W-21H 1 S 1-6-64	--	8.8	84.0	12	0.60	0.41	7.91	0.05	5	2	18	214	158	52	0.0	0.2	0.39	4.8	542	51
2N/20W-24E 1 S 10-8-63	74	8.4	957	46	2.30	4.93	3.17	0.05	7	88	1	40	3.51	3.29	1.47	1.7	0.4	0.39	583	583
				22	4.7	30	1.13	0.05	11	34	1.13	4.16	95	10.1	24.0	0.4	0.11	6.0	638	362
											11	40	19	1.98	2.85	0.39	2.7	0.4	6.20	620

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per percent reactivity value						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Silicate	TDS at 60°C	Total Evap at 60°C	
Date sampled				Na	K	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	Hardness CaCO ₃	
CALLEGUAS-CONEJO HYDRO SUBUNIT U03FO CONEJO VALLEY HYDRO SUBAREA U03F4																	
1N/19W-7F 1 S 10-4-63	69	8.3	842	1.85	2.55	31	116	2	16	332	108	56	2.0	0.4	0.08	25	501
				1.19	2.7	5.04	0.05	0.53	5.44	2.25	1.58	0.03					220
1N/19W-18B 9 S 11-19-63	--	8.3	1140	80	54	135	3	6	333	353	52	5.8	0.2	0.07	36	557	
				3.99	4.4	5.87	0.08	0.20	5.46	7.35	1.47	0.09					422
1N/19W-18H15 S 10-4-63	62	8.1	1462	130	88	59	1	0	532	75	50	1.0	1				889
				6.49	7.24	2.57	0.03			8.72	1.56	6.26	0.04				889
1N/20W-3J 1 S 10-24-63	76	7.8	696	53	36	54	0	0	293	96	42	0.8	0.3	0.04	33	951	
				2.64	2.96	2.35			4.80	2.00	1.18	0.01					687
1N/20W-15R 3 S 10-24-63	--	7.1	743	68	31	54	0	0	307	72	60	25	15				872
				3.39	2.55	2.35			5.03	1.50	1.8	1.18	3				872
TIERRA REJADA VALLEY HYDR SUBAREA U03F5																	
2N/19W-12M 2 S 10-29-63	74	7.8	880	54	63	58	2	0	232	217	73	4.4	0.2	0.14	53	704	
				2.69	5.18	2.52	0.05		3.80	4.52	2.06	0.07					394
				2.26	5.0	2.24			3.36	4.3	2.20	1					639

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos of 25°C)	Mineral constituents in parts per million equivalents per percent reaction value						Mineral constituents in parts per million per million percent reaction value							
				Calcium	Magnesium	Sodium	Potassium	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	T.D.S.		
Date sampled				CO ₃	Mg	K	Na	CO ₃	SO ₄	Cl	NO ₃	B	F	SiO ₂	Total dissolved solids		
CALLEGUAS-CONEJO HYDRO SUBUNIT																	
SAMI VALLEY HYDRO SUBAREA																	
2N/17W-8F 1 S 1-3-64	--	8.1	860	87	32	106	1	0	274	250	62	17.0	0.37	21	71.8	34.9	
2N/17W-14C 2 S 8-18-64	75	7.6	795	60	37	4.61	0.03	4.49	5.21	1.75	15	0.27	2	71.2	71.2	30.2	
2N/18W-1M 3 S 10-15-63	68	7.7	2700	297	107	66	4	0	343	134	23	1.5	0.5	0.06	--	4.72	
2N/18W-80 3 S 1-3-64	--	7.6	2000	339	21	2.87	0.10	5.62	2.79	0.65	31	0.02	7	4.95	4.95	1182	
2N/18W-11B 2 S 10-15-63	68	7.9	1800	16.92	1.73	8.57	0.13	263	0	384	1077	213	4.9	0.6	1.83	33	
2N/18W-18G 2 S 10-9-63	--	8.3	430	40	1.56	1.48	0.03	11	0.37	6.29	22.42	6.01	0.08	35	2386	1182	
THOUSAND OAKS HYDRO SUBAREA				39	31	29	1	0.73	1.71	35	124	23.0	0.4	1.35	36	2192	
1N/19W-2L 1 S 10-2-63	--	7.6	1916	182	104	145	6	0	571	600	66	11.0	0.6	0.29	55	1532	882
				9.08	8.55	6.30	0.15	1	9.36	12.49	1.86	0.18	8	1		1451	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	Specific conductance (micro-mhos at 25°C)	Mineral constituents						Mineral constituents in parts per million					
			pH	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfur
Date sampled			Ca	Na	K	CO_3	HCO_3	SO_4	Cl	NO_3	F	S_0_2	TDS Evap 60°C as Computed	Total hardness Evap 105°C as Computed
CALLEGUAS-CONEJO HYDRO SUBUNIT U03F0														
1N/19W 14C 3 S 10-24-63	72	7.2	1686	120 5.99 29	110 9.05 44	124 5.39 26	0.13 1	0	361 5.92 29	518 10.78 53	134 3.78 18	0.5 0.03	0.15	53 1210 1244
THOUSAND OAKS HYDRO SUBAREA U03F8														
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300														

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per millilitre reaction value				Mineral constituents in parts per million									
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Silica	Boron			
Date sampled				K	Mg	Na	Cl	HCO ₃	SO ₄	SiO ₂	B	Evap 180°C	Total hardness as CaCO ₃				
TOPANGA HYDRO SUBUNIT																	
15/16W-32G 1 S 10-18-63	--	7.4	1580	127	87	128	3	0	399	477	105	0.0	0.93	14	1264	675	
				6.34	7.15	5.96	0.08	29	6.54	9.93	2.96	0.0	0.0				
				33	37	32			34	51	15					1139	
7-22-64	66	7.7	1550	98	93	137	3	0	396	427	102	0.0	0.4	0.87	--	1186	628
				4.89	7.65	5.96	0.08		6.49	8.89	2.88						
				26	41	32			36	49	16						1056
15/17W-32F 4 S 10-18-63	--	7.2	5000	559	278	295	4	0	357	595	1628	5.9	0.02	0.86	25	4852	2540
				27.89	22.86	12.83	0.10		5.85	12.39	45.91	0.10					
				44	36	20			9	19	71						3566
12-23-63	--	7.1	5236	450	300	273	5	0	368	579	1405	12.0	0.06	0.63	59	4000	2358
				22.46	24.67	11.87	0.13		6.03	12.05	39.62	0.19					
				38	42	20			10	21	68						3265
7-22-64	66	7.7	4400	497	160	290	14	0	363	550	1160	2.0	0.02	0.70	--	3558	1900
				24.80	13.16	12.61	0.36		5.95	11.45	32.71	0.03					
				49	26	25			12	23	65						2852
15/17W-32F 5 S 10-18-63	--	7.6	2950	401	74	210	3	0	364	482	696	0.0	0.02	0.57	20	2444	1306
				20.01	6.09	9.13	0.08		5.97	10.04	19.63						
				57	17	26			17	28	55						2066

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reductance value						Mineral constituents in parts per million parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfur dioxide	T.D.S.	Evap. Br/C°C hardness
Date sampled				Ca	Mg	Na	K	HCO ₃	CO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	CO ₂	Computed
MALIBU CREEK HYDRO SUBUNIT																	
MALIBU CREEK HYDRO SUBAREA				U04B0	U04B1	MALIBU HYDRO UNIT											
1S/17W-29P 1 S 10-18-63	63	7.2	1500	121	79	130	1	0	369	502	60	0.0	0.4	0.77	25	1318	628
				6.04	6.50	5.65	0.03		6.05	10.45	1.69						
				33	36	31			33	57	9						
7-22-64	64	7.5	1750	124	110	122	2	0	388	576	93	0.0	0.2	0.70	--	1378	763
				6.19	9.05	5.30	0.05		6.36	11.99	2.62						
				30	44	26			30	57	12						
1S/17W-32F 5 S 7-21-64	65	7.4	4000	461	179	220	4	0	384	522	1099	0.3	0.2	0.70	--	1219	1888
				23.00	14.72	9.57	0.10		6.29	10.87	30.99						
				49	31	20			13	23	64						
RUSSELL VALLEY HYDRO SUBAREA				U04B5		U04B0											
1N/19W-24M 2 S 10-29-63	66	8.4	1600	30	18	365	4	8	537	368	64	3.6	0.2	0.21	31	1146	149
				1.50	1.48	15.87	0.10	0.27	8.80	7.66	1.80	0.06					
				8	8	84	1	1	4.7	4.1	10						
SHERWOOD HYDRO SUBAREA				U04B6		U04B0											
1N/19W-29D 2 S 10-24-63	66	7.5	752	83	27	51	1	0	366	51	44	22.0	0.3	0.03	39	450	318
				4.14	2.22	2.22	0.03		6.00	1.06	1.24	0.35					
				48	26	26			69	12	14						
1N/20W-25C 1 S 2-31-64	66	8.1	900	78	35	88	2	0	390	133	57	0.0	0.2	0.24	30	586	339
				3.99	2.88	3.83	0.05		6.39	2.77	1.61						
				37	27	36			59	59	15						

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million							
				Coliculum	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silicate	TDS	Total hardness as CaCO ₃
Date sampled				CO ₃	Mg	No	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂		
POINT DUME HYDRO SUBUNIT																	
ZUMA CANYON HYDRO SUBAREA				U04C0				U04C6									
2S/18W-6M 2 S	60	7.2	1040	5.112	5.59	4.69	2.35	0.03	0	352	253	10.0	0.02	0.17	22	790	514
10-17-63				5.44	3.7	19	1.1	5.77	5.46	4.2	1.47	0.16	1.1				
7-21-64	65	7.5	1160	66	91	51	1	0	364	255	64	10.0	0.01	0.21	--	734	539
TRANCA CANYON HYDRO SUBAREA				3.29	7.48	2.22	0.03	5.97	5.31	4.0	1.80	0.16	1.1				
1S/19W-35P 1 S	62	7.4	1100	5.112	5.59	4.61	3.13	0	339	258	81	4.1	0.02	0.40	26	836	717
10-18-63				5.42	3.5	23	0.03	5.56	5.37	4.2	2.28	0.07	1.1				
7-21-64	--	7.3	1260	79	89	76	1	0	371	283	86	2.0	0.02	0.42	--	894	563
1S/19W-35Q 2 S	62	7.4	1160	60	84	6	0	351	246	106	4.0	0.02	0.21	22	898	506	
10-18-63				5.19	4.93	3.65	0.15	5.75	5.12	4.1	2.99	0.06	2.1				
7-21-64	62	7.3	1380	78	98	85	0.1	0	403	261	139	5.0	0.01	0.22	--	976	598
				3.89	8.06	3.70	0.03	6.61	5.43	3.41	3.92	0.08	24				
				25	51	24										865	

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity value					Mineral constituents in parts per million								
				Calcium	Magnesium	Sodium	Fluoride	Chloride	Nitrate	Boron	Sulfate	Total Evap. at 05°C	Total Evap. at 05°C	Hardness CaCO ₃			
Date sampled				Mg	Na	K	HCO ₃	CO ₃	SO ₄	Cl	B	S.O.2	Calculated				
CAMARILLO HYDRO SUBUNIT ARROYO SEQUIT HYDRO SUBAREA U0400																	
1S/20W-25E 1 S 10-17-63	--	7.4	1010	83	64	3	0	302	262	5.8	0.0	0.6	1.54	4.4	850	454	
				4•14	4•93	2•78	0•08	4•95	5•45	1•64	4.5	1.4			725		
				35	41	23		41									
7-21-64	73	7.4	1060	84	63	3	0	306	270	62	0.0	0.4	1.38	--	762	469	
				4•19	5•18	2•91	0•08	5•02	5•62	1•75							
				34	42	24		41		14							
LITTLE SCAMORE CY HYDRO SUBAREA U0405																	
1S/20W-14K 1 S 12-2-63	--	8.1	1120	113	45	99	2	0	474	246	35	0.0	0.1	0.18	23	814	467
				5•64	3•70	4•30	0•05	7•77	5•12	0•99							
				41	27	31		56	37	7							
1S/20W-14K 2 S 12-2-63	--	7.4	1140	131	59	62	3	0	539	190	53	3•5	0•1	0.16	23	746	570
				4•85	2•70	0•08		8•83	3•96	1•49	0.06						
				6•54	46	34		62	28	10							
1S/20W-22P 1 S 7-21-64	71	7.7	1340	95	70	106	1	0	408	279	86	3•0	0•2	0.24	--	888	525
				4•74	5•76	4•61	0•03	6•69	5•81	2•43	0•05						
				31	38	30		45	39	16							
1S/20W-22P 2 S 10-17-63	--	7.2	1420	87	69	148	1	0	405	276	45	1•6	0•23	4.5	1286	501	
				5•34	5•67	6•44	0•03	6•64	5•75	3•89	0•07						
				26	34	39		41	35	24							
7-21-64	70	7.6	1320	63	97	93	1	0	415	282	98	5•0	0•2	0.23	--	872	556
				3•14	7•98	4•04	0•03	6•80	5•87	2•76	0•08						
				21	53	27		44	38	18	1						

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity value						Mineral constituents in parts per million						
			Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Boron	Sulfur dioxide	TDS Evap 10°C	TDS Evap 05°C	Total hardness as CaCO ₃
Date sampled			CO ₃	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	Ca	B	SiO ₂	B	SiO ₂	Combed S.O.2
CAMARILLO HYDRO SUBUNIT LA JOLLA VALLEY HYDRO SUBAREA U04D0															
MALIBU HYDRO UNIT U0400															
15/21W-1P 1 S 3-11-64	--	9.1	6.38	4	0	155	2	55	205	0	6.5	1.2	0.1	3.20	2
				0.20	3	6.74	0.05	1.83	3.36	26	1.83	0.02			370
						96	1	26	4.8		26				388

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in						Mineral constituents in							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica		
Date sampled				mg	mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	SiO ₂	Equiv. Evap 60°C	Temp 60°C Computed	Total hardness as CaCO ₃		
COASTAL PL OF LA CO HYDRO SUBUNIT 05A0 WEST COAST HYDRO SUBAREA U05A2																	
2S/14W-19K 2 S 11-13-63	--	7.8	1830	6.89	4.69	57	174	5	0	488	197	264	0.0	--	--	579	
	70	8.4	1850	5.44	4.93	36	7.57	0.13	8.00	4.10	7.44	21	38	--	1075		
7- 7-64						24	39	1								519	
2S/14W-19K 3 S 11-13-63	--	7.8	1250	90	38	60	168	6	0	352	191	270	1.8	--	--	979	
	70	8.0	1210	4.49	3.13	50	120	9	0	410	128	136	4.0	--	--	381	
3- 3-64						34	40	2								727	
4-20-64						39	37	127	--	0	409	116	132	7.5	--	--	372
7- 7-64						34	23	5.22	0.23	6.72	2.66	3.84	0.06			709	
2S/15W-34F 1 S 3-25-64	--	8.6	1260	92	38	132	13	20	408	119	140	3.2	--	--	--	386	
	73	8.5	1170	4.14	2.55	31	107	10	0	360	108	119	9.5	--	--	758	
						36	22	2								335	
2S/15W-34K 1 S 3-16-64	--	8.6	1550	1.35	1.32	16	348	12	--	988	19	60	0.0	--	--	645	
						7	84	2								134	
																968	
																262	
																566	

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reac-tance value						Mineral constituents in parts per million						
				Col-cu-m	Magn-e	Sodium	Potas-sium	Carbo-nate	Bicar-bo-nate	Sulfate	Chlor-ide	Ni-trate	Fuo-ride	Boron	Sili-ca	Total Evap (55°C) as Computed
Date sampled				C.O.	N.G.	N.O.	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	
COASTAL PL OF LA CO HYDRO SUBUNIT U0500																
3S/13W-29D 6 S 7-24-64	76	7.5	4.17	34	1.70	0.19	1.83	4.2	0.08	0	221	0	0.0	0.2	0.10	--
3S/13W-29G 3 S 10-23-63	68	7.8	1180	98	4.89	2.47	4.43	0.13	5	0	198	111	0.85	1.9	0.2	2.28
10-31-63	69	7.9	1320	137	6.84	2.55	4.48	0.13	103	5	315	108	227	0.0	0.30	20
3-10-64	--	7.8	1270	141	7.04	2.38	4.43	0.13	102	5	5.16	2.25	6.40	5.4	0.2	740
3-10-64	--	7.9	1386	143	7.14	2.47	4.22	0.13	97	5	314	106	224	0.0	0.20	18
4- 7-64	71	7.6	1300	137	6.84	2.63	4.30	0.13	99	5	5.15	2.21	6.32	4.7	0.1	691
3S/13W-31M 1 S 10-24-63	70	8.1	510	47	2.35	0.90	1.96	0.08	45	3	325	112	232	0.0	0.20	18
4- 8-64	76	7.9	510	44	2.20	1.40	1.96	0.08	45	3	3.70	0.90	0.59	1.1	0.1	828

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reductance value						Mineral constituents in parts per million										
				Calcium M g	Magnesium C o	Sodium N a	Chloride C l	Carbonate C O ₃	Bicarbonate H C O ₃	Sulfate S O ₄	Chloride C l	Nitrate N O ₃	Fluoride F	Boron B	Silica S i-O ₂	Total Evap 80°C as CaCO ₃				
COASTAL PL. OF LA CO HYDRO SUBUNIT U0500																				
WEST COAST HYDRO SUBAREA U0502																				
3S/13W-32E 2 S 10-30-63	--	8.1	490	50	0.56	1.91	0.08	3	0	232	21	0.0	0.02	0.10	21	272	154			
				49	11	38	2	38	77	0.80	0.56	0.59	11	12						
4- 7-64	71	7.8	500	40	1.07	1.91	0.08	3	0	233	23	0.0	0.02	0.14	17	280	154			
				40	21	38	2	38	74	0.82	0.71	0.65	14	13						
3S/13W-33A 3 S 11-12-63	--	8.3	582	60	1.4	4.7	3	0	224	77	4.4	0.0	--	--	--	289	207			
				299	1.15	2.04	0.08	2.04	67	1.60	1.24									
4- 6-64	--	8.0	672	71	1.6	4.0	3	0	242	53	4.2	0.0	--	--	--	355	243			
				354	1.32	1.14	0.08	1.14	64	1.10	1.18									
3S/14W-3K 1 S 10-28-63	73	8.0	525	51	1.1	50	4	0	258	14	4.0	0.0	0.02	0.18	21	326	172			
				254	0.90	2.17	0.10	2.17	75	0.23	0.29	1.13								
4- 1-64	66	8.0	500	42	1.10	1.17	0.10	0.10	38	0.23	0.29	0.29				318	318			
				36	24	38	2	38	75	0.23	0.29	0.29								
3S/14W-7K 5 S 9- 3-64	76	7.8	940	39	2.14	1.17	0.26	1.17	20	0	4.64	19	8.2	0.0	0.1	0.43	--	564		
				1.95	1.14	1.17	0.26	1.17	59	2	7.60	0.40	2.31					547		
3S/14W-130 5 S 10-25-63	68	8.0	1910	124	6.19	5.51	7.74	0.08	28	0	347	126	337	87.0	0.1	0.22	18	1242		
				6.19	5.51	7.74	0.08	28	40	5.69	2.62	9.50	1.40	14	7			585		
				32	32					30								1111		

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaaction						Mineral constituents in parts per million						
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silicate	TDS
Date sampled				Co.	Mg	No	K	CO ₃	HCO ₃	SO ₄	C ₁	N ₀ ₃	F	CaCO ₃	CaCO ₃	
COASTAL PL OF LA CO HYDRO SUBUNIT U05A0 WEST COAST HYDRO SUBAREA U05A2																
3S/14W-13Q 5 S 4- 3-64	66	7.3	2000	183 9.13	50 4.11	185 8.04	3 0.08	0	423 6.93	132 2.75	334 9.42	125.0 2.02	0.16 0.04	19	1238 12.02	663 1239
3S/14W-17G 2 S 10-29-63	73	8.0	600	29 1.45	21 1.73	74 3.22	8 0.20	0	351 5.75	0 15	0.99 15	0.0	0.23 0.30	30	386 370	159 155
4- 7-64	73	7.9	600	34 1.70	34 1.40	72 3.13	8 0.20	0	359 5.88	0 0.93	33 14	0.0	0.30 0.30	29	356 370	155 155
3S/14W-18N 4 S 7- 6-64	75	7.6	1310	108 5.39	39 3.02	123 5.35	7 0.18	0	292 4.79	39 0.81	294 8.29	0.0	0.18 0.02	--	795 754	430 430
3S/14W-18N 5 S 4- 3-64	70	7.5	1600	102 5.09	72 5.74	132 0.15	6 0.18	0	138 2.26	73 1.52	456 12.86	0.0	0.21 0.02	23	1156 932	551 932
7- 6-64	72	7.6	1530	20 1.00	111 9.13	140 6.09	7 0.18	0	319 5.23	65 1.35	337 9.50	0.0	0.20 0.02	--	1010 1010	507 507
3S/14W-21R 2 S 2-18-64	69	8.0	540	44 2.20	12 0.99	52 2.26	5 0.13	0	257 4.21	19 0.40	38 1.07	0.0	0.4 0.18	18	3116 3115	160 3116
3S/14W-22K 1 S 10-28-63	73	8.2	550	43 2.15	16 1.32	48 2.09	4 0.10	0	238 3.90	40 0.83	32 0.90	0.0	0.4 0.20	24	3114 325	174 325

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	TDS	Total hardness
Date sampled				CO ₃	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	CaCO ₃	
COASTAL PL OF LA CO HYDRO SUBUNIT U050A0 WEST COAST HYDRO SUBAREA																	
3S/14W-22K 1 S 4- 6-64	71	7.8	530	4.6	13	48	4	0	244	37	34	0.0	0.04	0.09	27	31.0	169
				2.30	1.07	2.09	0.10		4.00	0.77	0.96						
				41	19	38	2		70	13	17						
3S/14W-22L 1 S 10-28-63	71	8.0	525	5.1	13	48	4	0	239	43	32	0.0	0.04	0.10	21	32.9	181
				2.54	1.07	2.09	0.10		3.92	0.90	0.90						
				44	18	36	2		69	16	16						
63	8.3	550	42	19	50	4	0	243	43	35	0.0	0.02	0.14	26	33.0	183	
				2.10	1.56	2.17	0.10	0.13	3.98	0.90	0.99						
4- 1-64	69	7.6	1400	111	56	107	6	0	253	47	340	0.0	0.02	0.35	16	33.2	183
				5.54	4.61	4.65	0.15		4.15	0.98	0.59						
3S/14W-22R 2 S 10-28-63	69	7.6	1400	111	56	107	6	0	253	47	340	0.0	0.02	0.35	16	34.3	183
				3.35	2.6	3.7	2	2	66	15	17						
--	8.0	626	54	15	4.4	3	0	156	29	101	0.0	0.02	0.17	--	36.3	196	
				2.69	1.23	1.91	0.08		2.56	0.60	2.05						
				4.6	2.1	3.2	1		4.3	10	47						
3-10-64	--	575	54	13	4.7	3	0	155	21	100	0.0	0.02	0.13	13	34.6	188	
				2.69	1.07	2.04	0.08		2.54	0.44	2.82						
3-10-64	61	7.9	620	35	28	53	4	0	244	38	64	0.0	0.02	0.15	22	32.8	188
				1.75	2.30	0.10			4.00	0.79	1.80						
4- 6-64	70	7.8	710	70	53	3	0	226	59	81	0.0	0.02	0.14	22	37.6	203	
				3.49	1.40	2.30	0.08		3.70	1.23	2.28						
3S/14W-25K 4 S 10-25-63	70	7.8	710	70	53	3	0	226	59	81	0.0	0.02	0.14	22	36.4	203	
				3.48	1.19	3.2	1		5.1	17	32						

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in						Mineral constituents in									
				Colloidal C o	Magnesium M g	Sodium N a	Potassium K	Carbonate C O ₃	Bicarbonate H C O ₃	Sulfate S O ₄	Chloride C l	Nitrate N O ₃	Fluoride F	Boron B	Sulfate S O ₄	Total hardness as CaCO ₃			
COASTAL PL OF LA CO HYDRO SUBUNIT U0500 WEST COAST HYDRO SUBAREA U05A2																			
3S/14W-25K 4 S 4- 3-64	64	7.8	700	3.94	0.90	2.30	0.08	53	3	0	234	54	85	0.0	0.12	22	438	242	
3S/14W-27C 1 S 10-28-63	68	7.7	1040	4.79	4.44	2.22	0.13	32	1	52	1.12	2.40	33	0.0	0.18	19	422	422	
4- 2-64	64	8.1	1040	4.44	2.71	3.74	0.13	96	5	0	221	56	208	0.0	0.15	21	738	351	
3S/14W-29D 3 S 4- 1-64	72	7.9	700	1.75	1.89	3.48	0.15	27	1	34	1.17	5.87	55	0.1	0.15	21	606	358	
3S/14W-30D 2 S 2- 3-64	--	7.8	2430	6.44	4.03	13.04	0.18	89	5	0	225	59	216	0.8	0.15	21	704	621	
5-27-64	--	8.4	2280	6.24	3.78	13.04	0.20	129	4.9	300	7	0	164	327	508	0.0	--	--	
3S/14W-30E 1 S 10-28-63	--	8.0	876	5.6	1.79	1.70	0.10	14	4	0	136	63	138	0.0	0.24	23	398	182	
5- 5-64	--	8.4	880	3.04	1.23	4.26	0.13	36	15	48	1	2.23	1.31	3.89	0.0	--	--	524	501

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per milliliter percent reactivity						Mineral constituents in parts per million								
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silicate	TDS Evap 80°C	Total hardness as CaCO ₃	
Date sampled				K	Mg	Na	K	CO ₂	HCO ₃	SO ₄	Cl	F	B	SiO ₂	Computed			
COASTAL PL OF LA CO HYDRO SUBUNIT U05A0 WEST COAST HYDRO SUBAREA																		
3S/14W-30M 2 S 2-3-64	--	7.7	1090	55	14	156	3	0	168	160	162	6.0	--	--	--	195		
3S/14W-30G 1 S 4-1-64	--	7.5	2395	241	75	6.15	0.08	2.75	2.33	4.57	0.10	1	--	--	639	195		
3S/14W-30H 2 S 10-23-63	72	8.4	1040	74	33	5.65	0.26	0	223	93	668	2.0	0.3	0.10	29	1672	911	
4-7-64	71	7.5	1100	97	27	3.91	0.15	0.50	15	202	38	201	0.0	0.2	0.20	22	658	320
3S/14W-30M 2 S 2-19-64	--	7.7	1940	69	20	3.7	1	5	32	8	55	5.67	0	0.2	0.18	22	700	353
9-11-64	--	8.4	1510	62	17	2.22	0.18	0	238	45	229	6.46	0	0.2	0.18	22	700	353
3S/14W-30M 3 S 10-14-63	--	7.5	1300	95	30	1.43	--	0	158	273	220	17.0	--	--	--	--	1154	225
4-28-64	--	8.2	1360	108	29	1.42	6	0	160	249	208	34.0	--	--	--	--	911	361
				5.39	2.38	6.17	0.15	1	2.62	5.18	5.87	0.55	4	4	4	4	812	389
				38	17	4.4	--	--	18	36	36	--	--	--	--	855	389	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents				Mineral constituents in parts per million percent reductance value				Mineral constituents in parts per million			
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfate
Date sampled				mg	mg	mg	mg	mg	mg	mg	mg	mg	mg	mg	Total hardness
COASTAL PL OF LA CO HYDRO SUBUNIT U0500 WEST COAST HYDRO SUBAREA															
3S/14W-30N 1 S 10-14-63	--	8.1	1230	5	0.25	0.16	259	--	0	152	299	106	0.0	--	--
	--	8.3	1230	2	0.35	0.25	11.26	1	21	6.23	2.99	2.99	0.0	--	21
	--	7.9	2284	7	0.25	11.30	260	2	0	152	273	107	0.0	--	746
	--	7.6	1-7-64	3	0.35	0.25	9.95	0.05	22	5.68	2.49	3.02	0.0	--	30
	--	8.1	2290	9.68	4.61	5.6	180	7	0	232	108	560	0.0	--	727
	--	8.1	10-48	4.5	4.69	8.09	0.26	3.80	1	3.80	2.25	15.79	0.0	--	715
	--	8.1	2080	20	1.00	0.99	18.26	0.10	0	229	132	578	0.0	--	1219
	--	8.2	1920	1.3	0.65	0.74	17.22	0.10	2.75	3.75	2.75	16.30	0.0	--	759
	--	8.1	9500	560	27.94	25.49	14.20	19	0	165	337	298	0.0	--	1286
	--	8.4	9300	496	24.75	23.85	15.10	20	0	246	390	3640	0.0	--	100
	--	5-20-64		22	22	22	53	0.49	3	3.61	4.79	3600	0.0	--	70
									15	9.97	101.52	88	--	--	1138
									1	3.9	4.6	--	--	--	2674
									3	9	88	--	--	--	6496
									4	4.03	8.12	102.65	0.0	--	2432
									7	7	89	--	--	--	6467

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent readability				Mineral constituents in parts per million									
				Calcium	Magnesium	Sodium Potassium	Chloride	Bicarbonate	Sulfate	Nitrate	Fluoride	Boron	Silica	TDS Evap 18°C	Total hardness Evap 10.5°C	CaCO ₃	
Date sampled				Na	Mg	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	CaCO ₃		
COASTAL PL OF LA CO HYDRO SUBUNIT U050A2																	
WEST COAST HYDRO SUBAREA																	
3S/14W-33L 1 S	68	8.2	600	52	14	52	3	0	227	4	83	0	0.2	0.17	25	340	187
10-31-63				2.059	1.15	2.26	0.08	3.72	0.08	2.34	3.8					34.5	
3S/15W-3H 2 S	--	8.5	1180	35	1.9	233	10	--	734	4	62	0.0	--	--	--		166
3-25-64				1.075	1.56	10.13	0.26	12.03	0.08	1.75	1	1.3					724
3S/15W-11M 5 S	--	7.9	13600	1287	292	2440	11	0	250	762	4460	0.0	--	--	--		1918
2-26-64				14.032	24.01	106.09	0.08	4.10	15.86	125.77							
3S/15W-11M 7 S	--	8.0	14500	17.76	23.77	114.79	0.33	0	253	793	4810	0.0	--	--			8375
2-26-64				17.0	10	17	73	3	11	86							
3S/15W-12H 2 S	71	7.8	2100	111	96	185	8	0	299	26	573	0.0	0.2	0.32	14	1570	673
4-2-64				5.054	7.0	8.04	0.20	4.90	0.54	16.16	3	75					1161
8-3-64	72	8.3	1320	86	40	122	7	0	378	45	206	0.0	--	--	--		379
				4.029	3.029	5.30	0.18	6.20	0.94	5.81							
3S/15W-12H 3 S	--	8.3	1320	99	37	124	8	0	388	48	225	0.0	--	--	--		399
10-2-63				4.094	3.04	5.39	0.20	6.36	1.00	6.35	46	7					732
10-23-63	72	8.2	1220	90	39	130	8	0	375	45	220	2.3	0.2	0.30	24	750	385
				4.049	3.021	5.65	0.20	6.15	0.94	6.20	47	7					74.3

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfur dioxide	T.D.S.	Evap 10°C
Date sampled				C.O.	M.O.	N.O.	K	CO ₃	HCO ₃	SO ₄	C.I.	NO ₃	F	B	Evap 10°C	Complicated	CaCO ₃
COASTAL PL OF LA CO HYDRO SUBUNIT U0500 WEST COAST HYDRO SUBAREA																	
35/15W-12H 3 5 11-18-63	--	7.8	1320	94	38	124	7	0	384	55	216	0.0	--	--	--	--	391
				4.69	3.13	5.39	0.18	40	6.29	1.15	6.09						723
				35	23	40	1		4.6	.8	4.5						377
12-10-63	72	8.0	1291	90	37	126	31	--	368	56	216	0.0	--	--	--	--	737
				4.049	3.04	5.48	0.79	40	6.03	1.17	6.09						737
				33	22	40	6		4.5	.9	4.6						378
1- 6-64	72	8.1	1300	92	36	120	5	0	364	46	212	0.0	--	--	--	--	690
				4.059	2.96	5.22	0.13	40	5.97	0.96	5.98						384
				36	23	40	1		4.6	.7	4.6						706
2- 3-64	72	8.4	1280	93	37	120	6	0	356	49	216	10.0	--	--	--	--	380
				4.064	3.04	5.22	0.15	40	5.83	1.02	6.09	0.16					532
				36	23	40	1		4.5	.8	4.6						696
3- 3-64	72	8.1	1280	93	36	124	--	0	380	47	204	5.0	--	--	--	--	540
				4.064	2.96	5.39	0.23	41	6.23	0.98	5.75	0.08					557
				36	23	41			4.8	.8	4.4						218
3-10-64	--	8.4	870	46	24	105	6	7	130	144	121	0.4	0.02	0.21	14		515
				2.30	1.97	4.57	0.15	23	2.13	3.00	3.41	0.01					866
				26	22	51	2		24	34	39						827
3-10-64	--	8.5	923	46	25	101	6	7	129	144	121	1.0	0.04	0.23	--		436
				2.30	2.06	4.39	0.15	49	2.23	3.00	3.41	0.02					866
				26	23	49	2		3	24	34	39					436
4- 2-64	71	7.6	1400	76	60	142	8	0	394	51	272	0.0	0.02	0.32	24		827
				3.79	4.93	6.17	0.20	41	6.46	1.06	7.67						827

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reflectance value				Mineral constituents in parts per million									
				Cold. Ca	Mg	Sodium No	Photos. K	Carbonate CO ₃	Bicar. HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silicate SiO ₂	TDS Evap 80°C	TDS Evap 105°C
COASTAL PL OF LA CO HYDRO SUBUNIT U0500A																	
3S/15W-12H 3 S	73	8.4	1240	83	37	128	8	348	47	216	2.2	--	--	--	--	--	359
4- 9-64				4•14	3•04	5•57	0•31	0•27	5•70	0•09	0•04						704
				32	23	43	2	44	7	47							386
5- 4-64	72	7.8	1280	--	--	--	--	0	387	--	206	--	--	--	--	--	378
									6•34		5•87						
6- 9-64	72	7.9	1300	97	33	--	--	0	383	46	214	--	--	--	--	--	341
				4•84	2•71				6•28	0•96	6•03						656
7- 6-64	72	8.6	1290	74	38	117	8	0	325	46	208	5.2	--	--	--	--	354
				3•69	3•13	5•09	0•20	42	44	0•96	5•87	0•08					
				30	26	42	2		8	48	1						
9- 1-64	73	8.4	1250	79	38	--	--	0	361	--	210	--	--	--	--	--	721
				3•94	3•13				5•92		5•92						
3S/15W-13P 1 S	--	8.3	2250	198	55	200	6	306	44	566	0•0	--	--	--	--	--	1219
10- 2-63				9•88	4•52	8•70	0•15	37	1	5•02	0•92	15•96					
					42					23	4	73					
3-20-64	--	7.8	2200	198	57	166	4	0	293	4	564	0•0	--	--	--	--	729
				9•88	4•69	7•22	0•10	21	33	4•80	0•08	15•90					
3S/15W-13R 2 S	--	8.5	2200	204	76	146	13	0	310	228	460	7•2	--	--	--	--	1137
9- 2-64				10•18	6•25	6•35	0•33	27	1	5•08	4•75	12•97	0•12				
					44					22	57	57	1				

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp. when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million					
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Bicarbonate CO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total hardness Equiv. 105°C CaCO ₃
COASTAL PL OF LA CO HYDRO SUBUNIT U05A0 WEST COAST HYDRO SUBAREA															
35/15W-13R 6 S 7- 6-64	74	7.7	1100	80	37	113	7	0	360	8	209	0.0	0.2	0.18	--
35/15W-14J 1 S 10- 1-63	--	8.0	848	3.099 33	3.04 25	4.91 41	0.18 1	0.17 49	5.90 1	5.89 49	0.0	--	--	--	630
3-18-64	--	8.1	852	66	71	22	63	5	0	392	0	94	0.0	--	631
35/15W-24M 1 S 10- 9-63	--	8.0	1740	3.054 43	1.81 22	2.74 33	0.13 2	6.42 71	6.42 29	2.65 29	0.0	--	--	--	268
2-20-64	--	7.3	1450	61	21	210	2	0	384	0	94	0.0	--	--	448
9- 2-64	--	8.5	1080	3.04 22	1.73 12	9.13 65	0.05 0.05	2.13 15	4.58 33	9.25 48	0.45 4	--	--	--	263
35/15W-24N 1 S 10- 7-63	--	8.5	1240	4.2	15	156	3	0	166	107	156	37.0	--	--	458
4- 8-64	--	8.3	1250	0	0	265	4	0	152	2.23	2.23	32.0	--	--	304
LA SAN GABRIEL RIVER HYDRO UNIT U0500															
35/15W-13R 6 S 7- 6-64	74	7.7	1100	80	37	113	7	0	360	8	209	0.0	0.2	0.18	--
35/15W-14J 1 S 10- 1-63	--	8.0	848	3.099 33	3.04 25	4.91 41	0.18 1	0.17 49	5.90 1	5.89 49	0.0	--	--	--	448
3-18-64	--	8.1	852	66	71	22	63	5	0	392	0	94	0.0	--	458
35/15W-24M 1 S 10- 9-63	--	8.0	1740	3.054 43	1.81 22	2.74 33	0.13 2	6.42 71	6.42 29	2.65 29	0.0	--	--	--	982
2-20-64	--	7.3	1450	61	21	210	2	0	384	0	94	0.0	--	--	239
9- 2-64	--	8.5	1080	3.04 22	1.73 12	9.13 65	0.05 0.05	2.13 15	4.58 33	9.25 48	0.45 4	--	--	--	846
35/15W-24N 1 S 10- 7-63	--	8.5	1240	4.2	15	156	3	0	166	107	156	37.0	--	--	167
4- 8-64	--	8.3	1250	0	0	265	4	0	152	2.23	2.23	32.0	--	--	598

7
752
752

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (II)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million reductance value						Mineral constituents in parts per million						
				Calcium C. o.	Magnesium M. g.	Sodium N. a.	Potassium K.	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl.	Nitrate NO ₃	Fluoride F.	Boron B.	Sulfur S. O ₂	TDS Total Evap. B/C Evap. O/C Hardness as CaCO ₃ Computed
COASTAL PL. OF LA CO HYDRO SUBUNIT U0500																
3S/15W-24N 1 S	--	8.5	1280	0	0.33	11.74	0.26	270	10	0	159	335	120	0.0	--	--
8-27-64					3	95	2		20		6.97	3.38	26			817
3S/15W-24P 1 S	--	7.6	10449	72	218	49	0	2350	0	144	683	3840	0.0	--	--	1077
1- 8-64				3.59	17.93	102.18	1.25		2.36	14.29	108.29					7283
3-19-64	--	8.1	7550	62	159	1690	30		2	11	87					809
7-13-64	--	8.1	9010	3.09	13.08	73.48	0.77		0	140	624	2680	0.0	--	--	5314
3S/15W-24P 2 S	--	7.8	1400	111	32	145	3		2.29	12.99	75.58					797
4-10-64				5.54	2.63	6.30	0.08		3	14	83					5445
9-25-64	--	8.2	1370	105	31	139	5		0	146	640	2730	0.0	--	--	409
3S/15W-25A 3 S	--	8.3	1320	50	11	235	5		2.39	13.32	76.99					868
10- 3-63				2.50	0.90	10.22	0.13		2	22	33	4.2				832
4-13-64	--	8.0	1260	47	13	210	4		0	161	280	148	1.0	--	--	170
				2.35	1.07	9.13	0.10		2	72	1	21	4.17	0.02		825
				19	8							46				171
																782

TABLE E-1
MINERAL ANALYSES OF GROUND WATER (963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Mineral constituents in						Mineral constituents in					
			Specific conductance (micro-mhos at 25°C)	Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Sulfate
Date sampled			Mg	Na	K	CO ₂	HCO ₃	SO ₄	Cl	NO ₃	F	B	SIO ₂	Computed CO ₃
COASTAL PL OF LA CO HYDRO SUBUNIT U05A0 WEST COAST HYDRO SUBAREA														
3S/15W-25B 1 S 1- 9-64	--	7.7	1349	58	2.89	2.14	11.57	0.08	0	168	278	272	40.0	--
	--	8.2	1695	62	3.09	2.06	11.52	0.10	2.75	5.79	7.67	0.65	0.65	1026
	--	8.6	1630	60	2.99	2.06	10.65	0.08	0	167	293	276	41.5	--
	--	9-10-64	19	13	6.7	1.99	2.06	10.65	0.08	2.74	6.10	7.78	0.67	258
	--	7.9	1815	15	0.75	0.74	15.65	0.59	0	162	271	244	44.0	--
	--	8.4	1610	11	0.55	0.49	15.30	0.13	0	166	266	6.88	0.71	1049
	--	8.1	1240	7	0.35	0.49	10.22	0.20	0	170	344	344	3.0	--
	--	8.2	1160	8	0.40	0.90	9.78	0.20	2.72	7.16	7.56	0.05	0.05	253
	--	8.1	1200	49	2.45	1.97	7.57	0.10	0	154	321	104	0.0	--
	--	4- 6-64	20	16	1.45	1.97	7.57	0.10	2.52	6.68	2.93	24	24	--
	--	3S/15W-25B 3 S 10-24-63	3	3	3	3	93	1	0	174	328	24.0	0.0	--
	--	3S/15W-25B 3 S 4- 6-64	3	3	3	3	91	2	2.79	6.83	6.77	3.0	3.0	--
	--	3S/15W-25B 3 S 4- 6-64	20	16	1.45	1.97	7.57	0.10	2.26	6.12	3.61	1.12	1.12	--

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (I)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million reioncne value				Mineral constituents in parts per million			
				Calcium C.O.	Magnesium M.g.	Sodium N.O.	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂
COASTAL PL OF LA CO HYDRO SUBUNIT U05A0															
3S/15W-25C 4 S 3-27-64	--	7.6	3730	0.45	9	21	760	33.04	0.23	0	151	415	882	0.0	--
9- 4-64	--	8.3	4140	0	1.73	5	93	1	0	2.47	8.64	24.87	0.0	--	109
3S/15W-25C 5 S 10-17-63	--	8.0	2390	2.2	31	442	852	19	0	150	421	990	4.0	--	2170
3S/15W-25D 2 S 2-18-64	--	7.7	33200	1.00	2.55	19.22	37.04	0.49	0	2.46	8.77	27.92	0.06	--	140
3S/15W-25F 1 S 10- 4-63	--	8.2	1410	1.5	11	84	5	1	0	152	326	474	12.0	--	2394
4- 7-64	--	8.0	1320	1.5	1.9	897	8100	178	0	146	6.79	13.37	0.19	--	183
9-14-64	--	8.2	1240	0.75	0.82	11.30	260	4.55	0	2.39	45.00	397.62	1	--	1382
3S/15W-25F 4 S 10-31-63	--	7.6	1170	0.30	6	10	225	10	0	147	2190	14100	0.0	--	4451
LA SAN GABRIEL RIVER HYDRO UNIT U0500															
3S/15W-25C 4 S 3-27-64	--	7.6	3730	0.45	9	21	760	33.04	0.23	0	151	415	882	0.0	--
9- 4-64	--	8.3	4140	0	1.73	5	93	1	0	2.47	8.64	24.87	0.0	--	109
3S/15W-25C 5 S 10-17-63	--	8.0	2390	2.2	31	442	852	19	0	150	421	990	4.0	--	2170
3S/15W-25D 2 S 2-18-64	--	7.7	33200	1.00	2.55	19.22	37.04	0.49	0	2.46	8.77	27.92	0.06	--	140
3S/15W-25F 1 S 10- 4-63	--	8.2	1410	1.5	11	84	5	1	0	152	326	474	12.0	--	2394
4- 7-64	--	8.0	1320	1.5	1.9	897	8100	178	0	146	6.79	13.37	0.19	--	183
9-14-64	--	8.2	1240	0.75	0.82	11.30	260	4.55	0	2.39	45.00	397.62	1	--	1382
3S/15W-25F 4 S 10-31-63	--	7.6	1170	0.30	6	10	225	10	0	147	2190	14100	0.0	--	4451
WEST COAST HYDRO SUBAREA U05A2															
3S/15W-25C 4 S 3-27-64	--	7.6	3730	0.45	9	21	760	33.04	0.23	0	151	415	882	0.0	--
9- 4-64	--	8.3	4140	0	1.73	5	93	1	0	2.47	8.64	24.87	0.0	--	109
3S/15W-25C 5 S 10-17-63	--	8.0	2390	2.2	31	442	852	19	0	150	421	990	4.0	--	2170
3S/15W-25D 2 S 2-18-64	--	7.7	33200	1.00	2.55	19.22	37.04	0.49	0	2.46	8.77	27.92	0.06	--	140
3S/15W-25F 1 S 10- 4-63	--	8.2	1410	1.5	11	84	5	1	0	152	326	474	12.0	--	2394
4- 7-64	--	8.0	1320	1.5	1.9	897	8100	178	0	146	6.79	13.37	0.19	--	183
9-14-64	--	8.2	1240	0.75	0.82	11.30	260	4.55	0	2.39	45.00	397.62	1	--	1382
3S/15W-25F 4 S 10-31-63	--	7.6	1170	0.30	6	10	225	10	0	147	2190	14100	0.0	--	4451

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value					Mineral constituents in parts per million								
				Calcium C o	Magnesium M g	Sodium N a	Potassium K	Carbonate C O ₃	Bicarbonate H C O ₃	Sulfate S O ₄	Chloride C l	Nitrate N O ₃	Fluoride F	Boron B	Silica S i l i c o	TDS Evap 180°C S.O.2	Total hardness as CaCO ₃
COASTAL PL OF LA CO HYDRO SUBUNIT U0500 WEST COAST HYDRO SUBAREA																	
3S/15W-25F 4 S 5- 5-64	--	8.1	1220	0.35	0.66	10.44	0.23	9	0	148	311	105	4.8	--	--	--	51
3S/15W-25G 3 S 4- 9-64	--	7.6	1210	0.60	2.47	8.96	0.13	20	20	6.48	2.96	0.08	25	1	--	758	154
3S/15W-25G 6 S 10-29-63	--	7.5	1180	0.77	1.64	7.30	0.10	5	0	134	331	111	0.0	--	--	--	224
4-27-64	--	8.1	1100	0.50	2.50	1.56	7.35	0.10	1	2.20	6.89	3.13	26	18	--	--	761
3S/15W-25G 8 S 10-29-63	--	8.3	1180	0.10	0.16	10.44	0.20	2	0	140	330	100	0.0	--	--	--	748
4-22-64	--	8.2	1180	0.10	0.16	11.22	0.20	8	0	158	292	96	0.0	--	--	--	203
3S/15W-25G 9 S 10-31-63	--	8.3	1210	0.10	0.25	10.65	0.05	2	0	2.59	6.08	2.71	23	53	2.82	2.82	707
4-27-64	--	8.3	1220	0	0.41	11.17	0.05	5	2	0	156	299	100	0.0	--	--	718
									4	2.57	2.56	5.0	22	53	2.23	2.25	739
									96	0.05	2.56	6.23	2.93	25	53	0.08	18
									1	0.05	2.56	5.0	2.08	1	0.08	0.08	733
																749	

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value				Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Chloride	Boron	Nitrate	Fluoride	
Date sampled				CO ₃	K	Na	HCO ₃	Cl	NO ₃	B	SiO ₂	Total hardness as °ECD/COC/3
WEST COAST HYDRO SUBAREA U05A2												
3S/15W-25G10 S 4- 9-64	--	--	1160	22	200	4	0	144	309	0.0	--	--
	--	8.2	1160	1.10	1.81	8.70	0.10	2.36	6.43	3.05	--	146
9- 4-64	--	--	1160	26	22	194	5	0	143	305	980	736
3S/15W-25H 3 S 10-21-63	--	8.0	1430	117	1.81	8.44	0.13	2.34	6.35	27.64	0.02	156
	--	8.2	1420	2.22	4.13	95	--	0	166	221	20.0	--
4-28-64	--	--	1200	27	147	5	0	2.72	4.60	6.51	0.32	403
3S/15W-25K 3 S 10-28-63	--	7.8	1200	20	230	4	0	159	213	245	41.0	--
	--	8.2	1190	1.7	0.66	10.00	0.10	2.61	4.43	6.91	0.66	793
5- 4-64	--	--	1200	9	85	1	.1	18	30	47	5	876
3S/15W-25K 7 S 10-24-63	--	7.9	1210	22	14	215	4	0	154	314	104	--
	--	8.3	1200	1.10	1.15	9.35	0.10	2.52	6.54	2.93	0.0	411
5- 4-64	--	--	1200	15	16	220	5	0	148	312	104	--
				0.75	1.32	9.57	0.13	2.43	6.50	2.93	0.0	80
				6	11	81	1	20	55	25	--	743
											--	113
											--	749
											--	104
											--	745

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reionance value								Mineral constituents in parts per million						
				Calcium	Magnesium	Sodium	Potassium	Sulfur	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	TDS	Total hardness
Date sampled				Na	K	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	B	F	Eqd. 105°C	Eqd. 105°C	CaCO ₃	
COASTAL PL OF LA CO HYDRO SUBUNIT U0500 WEST COAST HYDRO SUBAREA																		
3S/15W-25K14 S 1- 8-64	--	7.6	1422	0.10	0.74	10.87	0.10	4	0	148	300	120	4.0	--	--	--	4.2	
3S/15W-25L 1 S 10-21-63	--	7.9	3800	0.25	0.74	36.22	9.7	5	--	0	204	54.3	800	0.0	--	--	50	
4-22-64	--	8.4	3550	0.20	0.66	33.04	0.54	4	8	760	21	0	196	565	714	6.2	--	
3S/15W-25L 2 S 10-16-63	--	8.7	1200	0.50	0.41	10.70	5	10	--	0	188	260	112	0.0	--	--	2290	
2-21-64	--	7.7	1200	0.30	0.16	10.87	0.18	6	2	250	7	0	166	293	100	0.0	--	
9-15-64	--	8.8	1320	0.80	0.66	11.09	0.31	16	8	255	12	0	247	125	212	0.0	--	
3S/15W-25P 1 S 2-24-64	--	7.7	3720	4.2	6.5	6.28	2.6	42	5.30	27.31	0.66	0	182	394	848	22.0	--	749
				2.10	5.35	2.71	0.66	10	15	77	2		2.98	8.20	23.91	0.35	1	373
																		2114

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in°F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million reacitance				Mineral constituents in							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfur				
Date sampled				M g	M g	N g	K	CO ₃	HCO ₃	SO ₄	Cl	F	B	SiO ₂	Cal 105°C				
COASTAL PL. OF LA CO HYDRO SUBUNIT U0500 WEST COAST HYDRO SUBAREA																			
3S/15W-250 2 S 1-31-64	--	7.6	1070	78	3.89	2.55	4.87	0.08	112	3	0	144	289	100	4.0	---	---	322	
				34	22	43	1	21	21	53	25	1	0.06	2.82	0.06	---	688	688	
2- 6-64	5.7	7.5	1030	82	4.09	2.38	4.43	0.08	102	3	0	140	286	96	0.0	---	---	324	
				37	22	40	1	21	21	54	25	2.71	5.95	2.71	2.71	6.67	6.67		
2-25-64	--	7.9	1050	80	3.99	2.47	4.70	0.08	108	--	0	131	298	100	0.0	---	---	323	
				36	22	42	22	215	215	620	25	2.82	6.20	2.82	2.82	6.80	6.80		
2-25-64	--	8.0	1050	81	4.04	2.22	4.52	0.08	27	104	--	0	124	293	92	0.0	---	---	313
				37	21	42	21	203	203	610	24	2.59	6.10	2.59	2.59	6.58	6.58		
2-27-64	--	7.6	1050	84	4.19	2.22	4.52	0.08	27	104	--	0	144	291	88	0.0	---	---	321
				38	20	41	20	236	236	606	23	2.48	6.06	2.48	2.48	6.65	6.65		
2-28-64	--	7.6	1050	83	4.14	2.22	4.65	0.08	27	107	--	0	133	292	98	0.0	---	---	318
				38	20	42	20	218	218	608	25	2.76	6.08	2.76	2.76	6.72	6.72		
3- 2-64	--	7.5	1070	86	4.29	2.30	4.65	0.08	28	107	--	0	136	291	104	0.0	---	---	330
				38	20	41	20	223	223	606	25	2.93	6.06	2.93	2.93	6.83	6.83		
3- 2-64	--	7.6	1090	85	4.24	2.28	4.70	0.08	29	108	--	0	126	296	110	0.0	---	---	331
				37	21	42	21	207	207	616	27	310	654	18	310	690	690		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reaction value				Mineral constituents in parts per million			
				Calcium CO ₃	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silicate SiO ₂
COASTAL PL OF LA CO HYDRO SUBUNIT U05A2															
3S/15W-25Q 2 S 3- 5-64	--	7.9	1360	78 3-89	20 36	108 4-70	0.08 4-3	0 1	132 2-16	295 6-14	100 25	0-0	--	--	302
3S/15W-25Q 3 S 2-18-64	--	7.6	33700	374 18-66	78-23 4	8400 365-23	140 3-58	0 1	170 2-79	2230 46-43	14900 420-18	2-0 0-03	--	--	675
3S/15W-25Q 4 S 2- 6-64	5.7	7.9	1106	82 4-09	29 2-38	118 5-13	3 0-08	0 1	136 2-23	284 5-91	128 3-61	0-0	--	--	4884
3S/15W-25R 1 S 4- 8-64	--	8.3	1200	13 0-65	13 1-07	230 10-00	3 0-08	0 1	149 2-44	312 6-50	104 2-93	0-0	--	--	324
3S/15W-25R 2 S 2- 4-64	--	7.9	3030	13 0-65	15 1-23	614 26-70	7 0-18	0 1	160 2-62	395 8-22	640 18-05	0-0	--	--	711
3S/15W-25R 4 S 4-23-64	--	7.7	3720	42 2-10	65 5-35	628 27-31	26 0-66	0 1	182 2-23	394 8-23	848 23-01	22-0 0-35	--	--	86
3S/15W-25R 4 S 4-23-64	--	8.2	1080	40 2-00	20 1-64	166 7-22	7 0-18	0 2	137 2-25	291 6-06	96 2-71	0-0	--	--	1763
3S/15W-36A 2 S 4-21-64	--	8.4	1130	92 4-59	20 1-64	138 6-00	6 0-15	0 1	180 2-95	239 4-98	146 4-12	0-0	--	--	748
L A SAN GABRIEL RIVER HYDRO UNIT U0500															
3S/15W-25Q 2 S 3- 5-64	--	7.9	1360	78 3-89	20 36	108 4-70	0.08 4-3	0 1	132 2-16	295 6-14	100 25	0-0	--	--	94
3S/15W-25R 1 S 4- 8-64	--	8.3	1200	13 0-65	13 1-07	230 10-00	3 0-08	0 1	149 2-44	312 6-50	104 2-93	0-0	--	--	373
3S/15W-25R 2 S 2- 4-64	--	7.9	3030	13 0-65	15 1-23	614 26-70	7 0-18	0 1	160 2-62	395 8-22	640 18-05	0-0	--	--	2114
3S/15W-25R 4 S 4-23-64	--	7.7	3720	42 2-10	65 5-35	628 27-31	26 0-66	0 1	182 2-23	394 8-23	848 23-01	22-0 0-35	--	--	182
3S/15W-36A 2 S 4-21-64	--	8.4	1130	92 4-59	20 1-64	138 6-00	6 0-15	0 1	180 2-95	239 4-98	146 4-12	0-0	--	--	687

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per percent reactivity				Mineral constituents in parts per million				Mineral constituents in parts per million			
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica
Date sampled				CO ₃	Mg	K	Na	HCO ₃	SO ₄	Cl	SiO ₂	F	B	SiO ₂	CO ₃
COASTAL PL OF LA CO HYDRO SUBUNIT U05A0															
WEST COAST HYDRO SUBAREA															
3S/15W-36A 3 S	--	7.6	1041	85	28	98	3	0	140	296	92	0.0	--	--	--
2- 7-64	--	7.1	1076	4.024	2.30	4.026	0.08	2.29	6.16	2.59	23	--	--	--	671
2- 7-64	--	8.1	1220	85	28	98	3	0	96	292	120	4.0	--	--	327
6-23-64	--	8.1	1220	4.024	2.30	4.026	0.08	1.57	6.08	3.38	30	0.06	--	--	677
6-24-64	--	8.05	1220	84	28	136	5	0	134	313	135	0.0	--	--	325
6-24-64	--	8.2	1190	84	28	138	5	0	2.20	6.52	3.81	--	--	--	767
6-24-64	--	8.3	1250	80	27	136	5	0	146	306	132	0.0	--	--	770
6-25-64	--	8.1	2330	3.099	2.22	5.91	0.13	2.39	6.37	3.55	29	--	--	--	752
7-10-64	--	6.7	1040	84	27	146	5	0	144	308	140	0.0	--	--	311
3S/15W-36A 4 S	--	7.64	1040	4.019	2.30	4.026	0.08	2.36	6.41	3.95	31	--	--	--	777
2- 7-64	--	8.1	1040	84	28	98	3	0	128	294	92	4.0	--	--	324
				39	21	39	1	2.10	6.12	2.59	24	0.06	1	--	1347
															666

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (II)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	TDS	Total hardness
Date sampled				Mg g	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	B	SiO ₂	CaCO ₃	Computed	Extr. bicarbonates	Total CO ₂
COASTAL PL OF LA CO HYDRO SUBUNIT U050A WEST COAST HYDRO SUBAREA																	
3S/15W-36A 4 S	--	7.1	1090	8.1	4.04	2.80	3.4	104	3	0	112	295	120	4.0	--	--	342
2- 7-64				35	35	24	24	4.52	0.08	1	16	6.14	3.38	0.06			696
4S/12W-30R 1 S	--	8.5	2980	7.2	3.59	3.45	4.2	510	9	0	538	0	736	0.0	--	--	352
7-14-64				12	12	12	12	22.17	0.23	1	30	8.30	20.76	7.0			1634
4S/12W-31C 1 S	--	8.5	5510	19.1	9.53	8.64	10.5	1090	23	0	233	249	2030	0.0	--	--	909
6- 1-64				14	13	13	13	47.39	0.59	1	6	3.82	5.18	57.25			3803
4S/12W-31M 1 S	--	8.9	3290	3.7	1.85	2.63	3.2	700	14	4.7	688	0	796	0.0	--	--	224
6- 3-64				5	5	7	86	30.44	0.36	1	4	1.57	11.28	22.45			1964
4S/13W-2P 1 S	--	8.3	1430	15.9	7.93	2.14	2.6	138	5	0	384	238	168	0.0	--	--	504
4-22-64				4.9	13	37	13	6.00	0.13	1	39	6.29	4.96	4.74			923
4S/13W-10B 2 S	6.8	8.1	4036	32.8	16.37	8.39	10.2	560	9	0	402	1520	416	0.0	--	--	1239
4-22-64				33	33	17	49	24.35	0.23	1	63	6.59	31.65	11.73			3133
4S/13W-10E 3 S	7.1	8.0	650	6.2	3.09	1.23	1.5	65	4	0	251	81	46	0.0	0.17	23	412
4- 3-64				43	43	17	39	2.83	0.10	1	58	4.11	1.69	1.30			420
4S/13W-11D 1 S	--	7.8	1775	1.73	8.63	4.52	5.5	180	6	0	359	372	255	0.0	0.2	0.41	1258
8-14-64				41	41	21	37	7.83	0.15	1	28	5.88	7.75	7.19			1218

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity value						Mineral constituents in parts per million					
				Calcium	Magnesium	Sodium	Potassium	Chloride	Sulfate	Nitrate	Fluoride	Boron	Silica	TDS	Total hardness
Date sampled				CO ₃	Na	K	CO ₃	HCO ₃	SO ₄	Cl	SiO ₂		Evd 18°C	Evd 55°C	Calculated
COASTAL PL OF LA CO HYDRO SUBUNIT U05A2															
4S/13W-11K 3 S 4-23-64	--	8.2	2391	11.48	2.30	0.7	0	376	282	460	0.0	--	--	--	706
4S/13W-15B 5 S 4-22-64	77	8.4	360	0.95	19	2.44	0.18	6.16	5.87	12.97	0.0	--	--	--	1440
4S/13W-15C 1 S 4-14-64	74	7.9	440	1.55	31	5.5	2	25	23	52	0.0	--	--	--	68
4S/13W-15Q 5 S 11-13-63	--	8.3	683	0.49	34	56	2	0	189	0	24	0.0	--	--	198
4S/13W-19J 6 S 7-15-64	76	7.8	458	1.50	30	57	4	0	3.10	82	18	0.0	--	--	240
4S/13W-22F 1 S 10-28-63	77	8.1	360	1.05	21	56	2	0	192	0	25	0.02	0.08	0.08	102
4- 7-64	79	7.9	440	1.20	25	4	0.05	3.05	1.5	74	10	16	0.0	0.0	0.0
4S/13W-22K 5 S 10-28-63	70	7.8	380	1.15	23	57	2	0	201	21	25	0.71	0.22	0.22	261
				0.25	28	63	1	3.29	0.44	74	10	16	0.0	0.0	0.0
				0.25	28	63	1	3.02	0.05	76	24	33	0.93	0.20	0.20
				0.25	29	6							17	200	70
				0.25	29	6								226	

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents				parts per million equivalents per million percent reactivity value				Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Barium	Silicate	Total hardness as CaCO ₃
Date sampled				M g	N g	K		HCO ₃	CO ₃	SO ₄	C _l	NO ₃	SiO ₂	Evap 10°C Computed		
COASTAL PL OF LA CO HYDRO SUBUNIT U0500																
4S/13W-22K 5 S	76	8.2	345	1.05	0.16	2.61	0.05	60	2	0	188	0	0.25	0.0	19	180
4- 8-64				27	4	67	1			3.08	19	0.71				61
8- 5-64	73	8.0	365	--	--	63	2	--	186	--	--	0.90	--	--	--	222
4S/13W-22K10 5	--	7.8	4430	1.224	9.0	630	1.2	0	374	390	1110	0.0	--	--	--	930
7-22-64				11.18	7.40	27.39	0.31	16	6.13	8.12	31.30					2640
4S/13W-23A 2 S	--		5150	1.29	53	950	1	0	616	510	1144	0.0	--	--	--	540
4-13-64				12	4.44	4.36	41.31	0.03	10.10	10.62	32.26					3090
4S/13W-23N 3 S	--	8.4	361	1.15	3	59	3	0	178	4	25	0.0	--	--	--	50
7-16-64				7	0.75	0.25	2.57	0.08	2.92	0.08	0.71					197
4S/13W-23N 4 S	--	7.9	5870	4.13	113	855	2	0	328	272	2000	0.0	--	--	--	1496
4-10-64				20.61	9.29	37.18	0.05	31	5.38	5.66	56.40					3816
4S/13W-23N 5 S	--	7.9	6060	4.96	205	660	23	0	196	161	2260	0.0	--	--	--	2082
6- 5-64				24.75	16.86	28.70	0.59	35	3.21	3.35	63.73					3901
4S/13W-25F 1 S	--	8.4	1830	6.7	4.3	266	1	0	394	133	336	0.0	--	--	--	344
4- 8-64				3.34	3.54	11.7	0.03	18	6.46	2.77	9.48					1040

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents				parts per million equivalents per million percent reaaction value				Mineral constituents in parts per million			
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silico-SO ₂
Date sampled				CO ₃	Mg ₂	Na	K	HCO ₃	CO ₃	SO ₄	Cl	F	B	CaCO ₃	
COASTAL PL OF LA CO HYDRO SUBUNIT U05A0 WEST COAST HYDRO SUBAREA															
4S/13W-26A 2 S 7-17-64	--	8.5	515	16	5	100	2	234	0	55	0	0.0	--	--	61
4S/13W-26A 3 S 6- 7-64	--	8.6	521	33	15	61	3	200	62	28	0.0	--	--	--	412
4S/13W-26F 6 S 5-26-64	--	8.4	418	12	4	1.23	2.65	0.08	0.13	3.28	1.29	0.79	--	--	144
4S/13W-26F 7 S 4- 2-64	--	8.2	4230	376	99	3.35	0.35	0	204	9	30	0.0	--	--	304
4S/13W-26R 1 S 5-27-64	--	8.8	1050	15	10	1.4	8	77	2	76	4	0.85	--	--	47
4S/13W-26R 3 S 4- 6-64	--	8.4	7750	416	216	17.76	52.18	0.87	0	270	224	1190	0.0	--	235
4S/13W-27A 2 S 10- 1-63	75	8.1	3540	250	58	4.77	17.39	0.31	0	380	253	852	0.0	--	1346
11- 5-63	70	7.8	3550	258	57	14	50	1	426	40	2930	0.0	--	--	2387
				12.87	4.69	16.96	49	13	6.98	0.83	82.63	0	165	0.0	79
				12.87	4.69	16.96	49	13	6.98	0.83	82.63	0	165	0.0	582
				12.87	4.69	16.96	49	13	6.98	0.83	82.63	0	165	0.0	5045
				12.87	4.69	16.96	49	13	6.98	0.83	82.63	0	165	0.0	1928
				12.87	4.69	16.96	49	13	6.98	0.83	82.63	0	165	0.0	863
				12.87	4.69	16.96	49	13	6.98	0.83	82.63	0	165	0.0	2012
				12.87	4.69	16.96	49	13	6.98	0.83	82.63	0	165	0.0	879
				12.87	4.69	16.96	49	13	6.98	0.83	82.63	0	165	0.0	2004

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reactivity				Mineral constituents in parts per million				
				CaCO ₃	MgCO ₃	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Total Evap (80°C) as Computed
COASTAL PL OF LA CO HYDRO SUBUNIT U05A2 WEST COAST HYDRO SUBAREA																
4S/13W-27A 2 S 12-4-63	70	8.3	3560	298	47	410	7	0	360	263	880	0.0	--	--	--	938
				14.87	3.87	17.63	0.18		5.90	5.48	24.82					2082
				40	11	49			16	15	69					
1- 6-64	66	7.7	3550	256	63	385	8	0	344	255	848	0.0	--	--	--	898
				12.77	5.08	16.74	0.20		5.64	5.31	23.91					
				37	15	48	1		16	15	69					
2- 5-64	68	7.6	3550	254	62	375	8	0	324	285	848	0.0	--	--	--	1984
				12.67	5.10	16.31	0.20		5.31	5.93	23.91					
				37	15	48	1		15	17	68					
3- 3-64	68	7.9	3600	254	61	410	9	0	356	265	872	0.0	--	--	--	885
				12.67	5.02	17.83	0.23		5.83	5.52	24.59					
				35	14	50	1		16	15	68					
4- 7-64	--	7.9	3500	245	62	420	5	0	264	268	910	0.0	--	--	--	867
				12.23	5.10	18.26	0.13		4.33	5.58	25.66					
				34	14	51			12	16	72					
5- 6-64	68	7.6	3650	--	--	--	--		360	--	908	--	--	--	--	2040
									5.90	25.61						
6- 3-64	70	8.2	3690	280	73	375	8	0	337	262	908	0.0	--	--	--	999
				13.97	6.00	16.31	0.20		5.52	5.45	25.61					
				38	16	45	1		15	15	70					
7- 6-64	73	8.2	3620	280	73	375	11	0	314	268	924	0.0	--	--	--	999
				13.97	6.00	16.31	0.28		5.15	5.58	26.06					
				38	16	45	1		14	15	71					

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in								Mineral constituents in						
				Calcium C.O.	Magnesium M.G.	Sodium N.O.	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Sulfur dioxide SO ₂	TDS Evap 18°C	Total hardness °S	TDS Evap 10°C
COASTAL PL. OF LA CO HYDRO SUBUNIT U05A2																		
4S/13W-27A 2 S 8- 5-64	75	8.1	3760	--	--	4.35	9	0	352	--	940	--	--	--	--	--	990	
9- 2-64	73	8.1	3730	28.2 14.0 3.7	64 5.26 14	4.20 18.26 4.8	8 0.20 1	0	344 5.64 15	258 5.37 14	934 26.34 70	20.0 0.32 1	--	--	--	967		
4S/13W-27E 1 S 6-23-64	--	8.8	410	1.9 0.95	5 0.41	69 3.00	3 0.08	1.1 0.37	199 3.26	0 0.79	28 0.0	0.0 0.79	--	--	2155			
4S/13W-27E 2 S 5- 1-64	--	8.3	3210	21.4 10.68 3.4	58 4.77 15	360 15.65 50	9 0.23 1	236 3.87 1.02	4.9 1.02 13	912 25.72 84	0.0 0.0 3	--	--	--	233			
4S/13W-27K 2 S 7- 6-64	--	8.8	729	24 1.20 1.16	8 0.66 0.9	128 5.57 74	3 0.08 1	11 0.37 5	211 3.46 4.8	0 3.38 4.7	120 0.0 20	0.0 0.0 0.0	--	--	1718			
4S/13W-27M 3 S 10-28-63	79	8.0	405	22 1.10 0.16	2 2.83 0.05	65 2.83 0.05	0 0.05	0 3.31	202 80	0 0.85	30 0.0	0.0 0.0	0.18 0.19	2.0 2.0	222	93		
4- 8-64	81	8.1	410	23 1.15 2.6	2 0.16 4	69 3.00 69	2 0.05 1	0 3.26	199 0.02	1 0.99	35 0.0	0.0 0.0	0.19 0.19	2.0 2.0	398			
4S/13W-27N 1 S 4- 8-64	82	8.3	470	20 1.00 2.0	2 0.16 3	86 3.74 75	5 0.08 2	203 3.33 3	2 0.04 68	48 1.35 1	0.0 0.0 28	0.0 0.0 0.25	19 19 285	241	63	66		
LA SAN GABRIEL RIVER HYDRO UNIT U0500																		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity				Mineral constituents in parts per million								
				Calcium C. _o	Magnesium M. _g	Sodium N. _a	Potassium K.	Carbon dioxide CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl.	Nitrate NO ₃	Fluoride F.	Boron B.	Sulfur S.	Total Evap 05°C hardness CaCO ₃ Computed
COASTAL PL OF LA CO HYDRO SUBUNIT U05A0																
4S/13W-27P 2 S 7- 3-64	--	8.7	518	0.60	0.33	4.13	0.08	0.20	2.93	0	72	0.0	--	--	--	47
4S/13W-27P 3 S 6-24-64	--	8.8	423	0.80	0.41	3.17	0.10	0.30	2.84	57	39	0.0	--	--	--	280
4S/13W-27P 4 S 5-20-64	--	8.5	1050	60	1.8	130	0.5	0	246	0	223	0.0	--	--	--	61
4S/13W-27P 1 S 7-21-64	--	8.0	31300	608	810	6100	65	0	394	1520	11400	0.0	--	--	--	236
4S/13W-28N 4 S 7- 2-64	--	8.9	491	24	6	83	3	16	237	0	30	0.0	--	--	--	224
4S/13W-28N 5 S 5-19-64	--	8.5	4444	8	3	90	2	0	222	0	38	0.0	--	--	--	557
4S/13W-29E 4 S 4-28-64	--	8.4	611	35	8	88	3	0	212	0	96	0.0	--	--	--	85
4S/13W-30H 1 S 7-20-64	--	8.6	520	4	1	130	2	10	288	0	23	0.0	--	--	--	121
				0.20	0.08	5.65	0.05	0.33	4.72	1	6	0.65	11	83	312	334

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in						Mineral constituents in							
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fuoride	Boron	Silica	TDS _{25°C}	Total hardness
Date sampled				M g	M g	N a	K	HCO ₃	HCO ₃	SO ₄	C l	N O ₃	F	B	S O ₂	CaCO ₃	
COASTAL PL OF LA CO HYDRO SUBUNIT U0500 WEST COAST HYDRO SUBAREA U05A2																	
4S/13W-30H 2 S	--	8.5	4.30	2.3	0.66	2.61	0.10	4	0	228	3	31	0.0	--	--	--	91
4-22-64				1.15	25	58	2	10	3.74	0.06	0.87	19					241
4S/13W-30H 3 S	--	8.6	512	2.6	7	75	2	10	176	42	47	0.0	--	--	--	--	94
6-22-64				1.30	0.58	3.26	0.05	1	2.88	0.87	1.33	25					296
4S/13W-30H 4 S	--	8.7	410	1.8	9	60	4	14	205	0	29	0.0	--	--	--	--	82
6-12-64				0.90	0.74	2.61	0.10	4.7	3.36	0.82							235
4S/13W-30P 1 S	--	8.7	481	2.4	10	70	3	18	237	0	36	0.0	--	--	--	--	101
6-12-64				1.20	0.82	3.04	0.08	11	3.88	1.02	1.02						278
4S/13W-30P 2 S	--	8.5	424	2.0	8	64	3	0	240	0	24	0.0	--	--	--	--	83
5-14-64				1.00	0.66	2.78	0.08		3.93	0.68	15						237
4S/13W-30P 3 S	--	8.4	1420	1.10	2.3	152	9	0	360	56	250	0.0	--	--	--	--	369
4-21-64				5.49	1.89	6.61	0.23	8	5.90	1.17	7.05						
4S/13W-31J 1 S	--	8.8	996	2	4	233	5	26	368	7	130	0.0	--	--	--	--	22
6-17-64				0.10	0.33	10.13	0.13	0.87	6.03	0.15	3.67						588
4S/13W-31J 2 S	--	8.5	1360	1.4	8	273	7	0	444	0	228	0.0	--	--	--	--	68
5-15-64				0.70	0.66	11.87	0.18	1	7.28	6.43	4.7						748

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity value						Mineral constituents in parts per million				
				Calcium C. C. O.	Magnesium M. g	Sodium N. a	Potassium K	Chloride Cl	Sulfate SO ₄	Nitrate NO ₃	Boron B	Silica SiO ₂	TDS Evap 05°C Evap 05°C Computed	Total hardness as CaCO ₃
COASTAL PL OF LA CO HYDRO SUBUNIT U050A2 WEST COAST HYDRO SUBAREA														
4S/13W-31J 3 S 4-23-64	--	7.6	7840	18.66	12.09	1.47	1125	0	224	0	2720	--	--	1539
4S/13W-31N 1 S 3-19-64	--	8.5	490	0.15	15	7	94	3	0	273	0	31	0.0	--
4S/13W-31P 1 S 5- 6-64	81	7.8	1200	20	16	238	8	--	4.47	0.08	0.07	16	--	67
4S/13W-34A 1 S 7- 7-64	--	8.5	455	0.35	0.16	1.32	10.35	0.20	363	3	224	0.0	--	284
4S/13W-34A 2 S 3-30-64	--	8.1	24300	430	767	5080	54	0	5.95	0.06	6.32	51	--	116
4S/13W-34A 3 S 5- 4-64	--	8.2	18500	624	558	2980	40	0	1.98	0	56	0.0	--	687
4S/13W-34M 1 S 6-25-64	--	8.8	526	31.14	45.89	129.57	1.02	4.80	2.98	0.08	1.58	35	--	26
4S/13W-34M 3 S 5-21-64	--	8.5	984	19	11	186	6	0	7.57	15.76	10000	0.0	--	255
L A SAN GABRIEL RIVER HYDRO UNIT U0500														4230
														17701
														3855
														11791
														66
														293
														93
														547

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent transmittance value						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfate	Total Evap 105°C	Hardness CaCO ₃	
Date sampled				Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂		
COASTAL PL OF LA CO HYDRO SUBUNIT U05A0																	
4S/13W-35B 3 S	--	8.7	1000	0.05	0.08	1		225	7	12	425	52	75	0.0	--	--	7
6-30-64								9.78	0.18	0.40	6.97	1.08	2.12				5.82
								1	97	2	66	10	20				
4S/13W-35B 4 S	--	8.2	46000	4664	1150	9500		213	0	317	2280	0.0	--				5891
4-3-64				23.15	94.58	413.06	5.05		5.20	4.77	4.87	86	90				
				4	18	77	1		1	9	90						
7- 9-64	--	8.7	1810	0	4	450	16		32	834	147	30	0.0	--			17
				0.33	19.57	0.41	1.07		13.67	3.06	0.85						
4S/13W-35J 2 S	--	8.4	7410	178	214	1175	2		6	73	16	5					1089
4-7-64				8.88	17.09	51.09	0.05		0	532	260	2260	0.0	--			
				11	23	66	11		11	8.72	5.41	6.37	13				
4S/13W-35M 4 S	--	8.2	41000	488	1220	9800	185		--	281	2510	1810	0.0	--			1325
3-27-64				24.35	100.33	426.10	4.73		4.61	4.61	52.26	510.42					4351
				4	18	77	1		1	9	90						
4S/13W-35M 6 S	--	8.5	926	18	8	176	7		0	314	0	148	0.0	--			78
5-25-64				0.90	0.66	7.65	0.18		5.15	5.15	4.17	4.5					6239
4S/13W-35Q 1 S	68	9.2	11600	92	190	3150	14		90	175	2570	3319	0.0	0.4	1.80	3	9326
12-17-63				4.59	15.63	136.96	0.36		3.00	2.87	53.51	93.60	61				1012
				3	10	87	2		2	35							
4S/14W-1F 2 S	71	8.0	470	40	11	47	4		0	214	29	31	0.0	0.19	2.1	274	145
10-23-63				2.00	0.90	2.04	0.10		40	3.51	0.60	0.87	17				289
				40	18	40	2		70	12							

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity				Mineral constituents in parts per million									
				Calcium	Magnesium	Sodium	Potassium	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silicate	TDS		
Date sampled	in °F			C O	M g	N o	K	H C O 3	C O 3	S O 4	C l	N O 3	F	B	S i O 2	C O 3	Total hardness as C a C O 3
COASTAL PL OF LA CO HYDRO SUBUNIT U05A2 WEST COAST HYDRO SUBAREA																	
4S/14W- 1F 2 S 4- 3-64	--	8.2	500	1.85	0.89	1.2	0.4	0	2.26	34	0.0	0.02	0.12	19	282	142	
4S/14W- 3L 2 S 10-24-63	70	8.4	620	4.2	2.2	5.6	5	10	221	34	0.0	0.02	0.18	23	299	370	
4S/14W- 6G 2 S 12-20-63	--	8.3	998	64	1.4	1.22	3	0	222	77	1.54	0.0	--	--	365	196	
4S/14W- 6L 1 S 12-20-63	--	8.4	1205	88	2.0	1.36	5	0	222	1.60	4.34	1.7	4.5	--	543	217	
5-20-64	--	4.39	1.64	5.91	0.13	0.15	1	3.64	3.8	1.67	0.0	--	--	--	302		
4S/14W- 6L 1 S 12-20-63	--	8.1	31900	1160	926	6500	72	0	192	1.880	13520	0.0	--	--	6707		
5-28-64	--	8.2	31200	1200	949	6500	50	0	193	1.840	13500	0.0	--	--	24152		
4S/14W- 7C 3 S 12-19-63	--	7.8	44100	528	1125	8700	272	0	188	2.284	16320	0.0	--	--	6902		
5-21-64	--	8.4	37000	540	1150	9300	240	0	196	2.260	16900	0.0	--	--	24134		
				26.95	94.08	404.36	6.14	5	1.28	3.21	4.705	4.76.58	1	90	5948		
															30486	29321	
															6081		

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				Parts per million equivalents per million percent reactivity				Mineral constituents in parts per million			
				Calcium	Magnesium	Sodium	Potassium	Bicarbonate	Carbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silicate
Date sampled				Mg M g	Mg M g	Na K	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	SiO ₂	Calculated
COASTAL PL OF LA CO HYDRO SUBUNIT U050A2															
4S/14W-7F 1 S 12-18-63	--	8.1	4930U	536	1227	9950	150	0	324	2466	18120	0.0	--	--	6388
				26.75	100.01	432.63	3.84	5.31	51.34	510.98	90				32608
				5	18	77	1	1	9	90					
5-21-64	--	8.4	40600	552	1270	10000	180	0	328	2420	18300	0.0	--	--	6604
				27.54	104.44	434.80	4.60	5.38	50.38	516.06	90				32883
4S/14W-7P 1 S 12- 9-63	--	8.2	42700	592	1174	9000	330	--	608	2083	16960	0.0	--	--	6310
				29.54	96.05	39.32	8.44	9.97	43.37	478.27	8				30438
5-19-64	--	8.5	37700	616	1210	9250	50	31	485	2070	17000	0.0	--	--	6518
				30.74	99.51	402.19	1.28	1.03	7.95	43.10	479.40	8			30465
4S/14W-7P 2 S 12- 2-63	--	7.6	48800	428	1290	10000	248	0	153	2790	18600	0.0	--	--	6378
				21.36	106.09	434.80	6.34	2.51	58.09	524.52	90				33431
5-18-64	--	8.2	42000	418	1290	10800	370	0	134	2710	19100	0.0	--	--	6353
				20.86	106.09	469.58	9.46	2.20	56.42	538.62	90				34754
4S/14W-7P 3 S 12- 2-63	--	7.8	41900	636	1123	8550	89	0	216	2240	16280	0.0	--	--	6210
				31.74	92.36	371.75	2.28	3.54	46.64	459.10	90				29024
5-18-64	--	8.4	36700	616	1150	9250	90	0	231	2200	16900	0.0	--	--	62271
				30.74	94.58	402.19	2.30	3.79	45.80	476.58	91				30320

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE, (U)

State well number	Temp when sampled in°F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				Mineral constituents in				Mineral constituents in				
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fuoride F	Boron B	Silicate SiO ₂	Total Evap 80°C
Date sampled																Total hardness CaCO ₃ Computed
COASTAL PL OF LA CO HYDRO SUBUNIT U050A0																
WEST COAST HYDRO SUBAREA																
4S/14W- 8D 2 S 1-23-64	--	7.5	42000	496	1230	10100	155	0	184	2610	18200	0.0	--	--	--	6301
				24.075	101.16	439.15	3.96	3.02	54.34	513.24						32881
				4	18	77	1	1	10	90						6439
6-10-64	--	8.1	41600	469	1280	10500	235	0	166	2638	18700	0.0	--	--	--	33904
				23.40	105.27	456.54	6.01	2.72	54.92	527.34						33904
7-30-64	--	7.8	47400	489	1260	10500	265	0	15	2680	18900	0.0	--	--	--	6406
				24.040	103.62	456.54	6.78	0.25	55.80	532.98						34101
4S/14W- 8E 3 S 7-28-64	--	8.4	1285	10	1	263	5	0	156	316	110	0.0	--	--	--	29
				0.50	0.08	11.44	0.13	2.56	6.58	3.10						782
				4	1	94	1	21	54	25						782
8-26-64	--	8.6	1280	0	3	270	6	0	153	307	108	0.0	--	--	--	13
				0.25	11.74	0.15	2.51	6.39	3.05							769
4S/14W- 8F 4 S 11- 7-63	--	6.8	14800	796	320	2050	165	0	16	276	5200	0.0	--	--	--	3305
				39.72	26.32	89.13	4.22	0.26	5.75	146.64						3305
6- 3-64	--	8.2	12100	824	325	1800	40	0	156	530	4740	0.0	--	--	--	8815
				41.12	26.73	78.26	1.02	2.56	11.03	133.67						8815
4S/14W- 8F 5 S 6- 3-64	--	8.0	4570	653	212	200	14	0	120	132	1960	0.0	--	--	--	3395
				32.58	17.43	8.70	0.36	1.97	2.75	55.27						3395
				55	30	15	1	3		92						3395
LA SAN GABRIEL RIVER HYDRO UNIT U0500																
LA SAN GABRIEL RIVER HYDRO UNIT U0502																

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (II)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents				parts per million equivalents per million percent reactivity				Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfur	Total hardness
Date sampled	in °F	Na	K	No	Mg	Ca	CO ₃	SO ₄	Cl	F	B	SiO ₂	Ca	CO ₂	CaCO ₃	
COASTAL PL OF LA CO HYDRO SUBUNIT TUOSAZ																
4S/14W- 8F 5 S 8-26-64	--	7.6	6720	688	228	365	19	0	138	178	2240	3.3	--	--	--	2656
				34.33	18.75	15.87	0.49	2.26	3.71	63.17	0.05					3789
				49	49	27	1	3	5	91						2715
9-79-64	--	8.0	6930	708	230	385	20	0	154	203	2290	0.0	--	--	--	3912
				35.33	18.92	16.74	0.51	2.52	4.23	64.58						3783
4S/14W- 8F 6 S 11-7-63	--	7.8	13600	920	361	1750	0	150	617	4680	0.0	--	--	--	--	8572
				45.91	29.69	76.09	4.35	2.46	12.85	131.98						3473
6- 3-64	--	8.1	11000	852	327	1900	40	0	148	611	4880	0.0	--	--	--	8683
				42.51	26.89	82.61	1.02	2.43	12.72	137.62						1896
4S/14W- 8M 2 S 7-28-64	--	8.3	6470	408	213	640	22	0	187	74	2180	0.0	--	--	--	3629
				20.36	17.52	27.83	0.56	3.06	1.54	61.48						941
4S/14W- 8M 3 S 5-15-64	--	8.5	1695	117	30	196	5	--	256	83	384	0.0	--	--	--	416
				5.84	2.47	8.52	0.13	4.20	1.73	10.83						471
7-28-64	--	8.4	1740	131	35	186	5	0	268	122	371	10.0	--	--	--	992
				6.54	2.88	8.09	0.13	4.39	2.54	10.46	0.16					345
8-26-64	--	8.7	1401	97	25	164	5	0	169	258	206	0.0	--	--	--	848
				4.84	2.06	7.13	0.13	2.77	5.37	5.81						
				34	15	50	1	1.9	3.8	4.1						

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents				Parts per million equivalents per percent resistance value				Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silicate	Total Evap 18°C
Date sampled				Na	Mg	K	CO ₃	SO ₄	HCO ₃	Cl	B	F	NO ₃			Hardness as CaCO ₃
COASTAL PL OF LA CO HYDRO SUBUNIT U050A																
4S/14W- 8M 3 S 9-28-64	--	8.4	1130	4.09	1.64	2.0	0.10	132	0.16	2.96	106	0.0	--	--	--	287
4S/14W- 8M 4 S 12-6-63	--	8.1	6740	340	16.97	192	50	5.74	2.36	21	2.99	26	--	--	--	711
5-15-64	--	8.4	5333	4.17	15.79	33.04	2.68	760	105	--	200	121	2200	0.0	--	1639
7-28-64	--	8.3	6470	20.81	19.6	585	0.43	25.44	41	0	3.28	5	62.04	91	--	3816
8-76-64	--	8.1	6660	20.36	17.52	640	0.56	27.83	42	0	186	82	2030	0.0	--	1848
9-28-64	--	8.3	6640	19.56	15.54	30.65	0.69	26	41	0	3.05	1.71	57.25	--	--	3418
4S/14W- 90 1 S 10-2-63	73	8.4	925	35	1.75	0.90	6.26	1.44	27	0	1.87	74	2180	0.0	--	1896
10-28-63	73	7.7	880	33	1.65	0.99	6.44	1.48	10	0	3.06	1.54	61.48	--	--	3629

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reacitance						Mineral constituents in parts per million							
				Colicum	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfate	TDS Evap 105°C	Total hardness as CaCO ₃
Date sampled				CO ₃	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂		
COASTAL PL OF LA CO HYDRO SUBUNIT U05A0																	
WEST COAST HYDRO SUBAREA																	
4S/14W- 9Q 1 S 11-22-63	--	7.7	914	1.90	0.82	10	1.56	0	278	6	162	0.0	--	--	--	--	136
				20	9	6.78	0.08	4.9	4.9	0.12	4.57					512	
						71	1			1	4.9						133
12-10-63	55	8.2	907	1.75	0.90	11	1.44	22	--	277	30	156	0.0	--	--	--	
				18	10	6.26	0.56	4.54	4.54	0.62	4.40					534	
						6	6	4.7	4.7	6	4.6						131
1- 6-64	72	8.2	927	1.80	0.82	10	1.56	3	0	284	0	168	0.0	--	--	--	
				19	9	6.78	0.08	4.65	4.65	0.08	4.74					513	
						72	1			50	50						
2- 3-64	63	--	898	1.75	0.90	11	1.46	4	0	290	0	144	0.0	--	--	--	
				19	10	6.35	0.10	4.75	4.75	0.06	4.6					483	
						70	1			54	54						
3- 3-64	55	7.9	879	2.40	0.25	3	1.38	--	0	280	0	144	0.0	--	--	--	
				28	3	6.00	0.25	4.59	4.59	0.06	4.7					471	
						69				53	53						
4- 2-64	--	7.7	820	1.65	0.99	12	1.42	5	0	291	5	138	0.0	0.02	0.35	24	132
				18	11	6.17	0.13	4.77	4.77	0.10	3.89					503	
						69	1			54	54						
4- 8-64	73	7.7	882	1.80	0.90	11	1.38	8	0	285	0	144	0.0	--	--	--	135
				20	10	6.00	0.20	4.67	4.67	0.06	4.7					477	
						67	2			53	53						
5- 4-64	--	8.0	874	--	--	--	--	--	0	283	--	144	--	--	--	--	143
												4.64					

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity value				Mineral constituents in parts per million					
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride
Date sampled	Ca	Mg	Na	K	CO ₂	HCO ₃	SO ₄	Cl	NO ₃	F	B	Evd 10°C	Total hardness as CaCO ₃
COASTAL PL OF LA CO HYDRO SUBUNIT U050A													
4S/14W-9C 1 S 6-10-64	72	8.1	833	1.90	0.82	10	--	0	291	0	130	--	--
7- 6-64	68	8.9	799	1.80	0.90	11	116	5	18	248	0	124	--
				23	11	5.04	0.13	0.60	4.06	7	3.50	4.3	--
					64	2				50			135
8- 3-64	73	8.3	854	1.33	0.99	12	--	--	283	--	133	--	--
				65	0.99				4.64		3.75		432
4S/14W-10J 1 S 10-24-63	72	7.8	620	4.3	1.3	67	5	0	231	5	79	1.4	0.17
				21	1.07	2.91	0.13	0.13	3.79	0.10	2.23	0.02	23
				34	17	46	2		62	2	36		330
4- 2-64	77	8.0	590	3.6	1.6	67	5	0	244	5	74	0.0	0.12
				80	1.32	2.91	0.13	0.13	4.00	0.10	2.09		21
				29	21	47	2		65	2	34		356
4S/14W-11F 1 S 10-23-63	73	7.9	880	3.54	2.22	76	7	0	258	58	139	2.2	0.12
				38	24	36	2		4.23	1.21	3.92	0.04	23
4- 2-64	72	7.8	960	4.4	4.5	85	6	0	270	55	147	1.4	0.18
				20	3.70	3.70	0.15	0.15	4.43	1.15	4.15	0.02	21
4S/14W-16F 1 S 10-29-63	73	8.1	720	3.6	1.2	104	5	0	276	6	97	0.0	0.23
				80	0.99	4.52	0.13	0.13	4.52	0.12	2.74		28
				24	13	61			61	2	37		428
													140
													424

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents				parts per million equivalents per million percent				parts per million				Mineral constituents in parts per million			
				Calcium C.O.	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Iodate I _o	Fluoride F	Boron B	Sulfur S	Chloride Cl	Fluoride F	Boron B
4S/14W-16F 1 S 4- 2-64	65	8.0	74.0	3.7	1.07	4.57	0.13	105	5	0	27.9	6	9.9	0.0	0.1	0.19	30	4.32	14.6
4S/14W-16L 2 S 10-28-63	74	8.3	76.0	4.0	1.2	11.0	5	4	28.1	0	106	0.0	0.0	0.30	29	4.52	15.0		
4S/14W-16L 4 S 4- 2-64	74	7.6	75.0	3.6	1.6	10.9	5	0	28.3	10	108	0.0	0.0	0.20	31	4.54	15.6		
4S/14W-17D 1 S 11-13-63	--	8.3	72.00	6.16	3.13	52.0	0	21.2	9.2	26.40	0.0	0.0	--	--	--	4.55	2826	4415	
5- B-64	--	8.1	8030	6.18	3.32	6.00	23	0	16.0	14.7	28.40	0.0	0.0	--	--	--	2909	4639	
4S/14W-17D 2 S 11-13-63	--	8.3	31800	10.48	7.66	56.00	315	0	23.0	15.60	11.680	0.0	0.0	--	--	--	5770	5745	
5- B-64	--	8.4	31300	10.20	7.77	57.00	63	0	24.0	16.60	11.700	0.0	0.0	--	--	--	21082	21038	
4S/14W-17D 4 S 11-14-63	--	8.1	20700	9.60	5.68	33.00	225	0	23.0	9.01	7.500	0.0	0.0	--	--	--	4.734	4.734	

LA SAN GABRIEL RIVER HYDRO UNIT U0500

COASTAL PL OF LA CO HYDRO SUBUNIT U05A2				WEST COAST HYDRO SUBAREA				U05A2				LA SAN GABRIEL RIVER HYDRO UNIT U0500								
State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents	Mineral constituents	Mineral constituents	Mineral constituents	Mineral constituents	Mineral constituents	Mineral constituents	Mineral constituents	Mineral constituents	Mineral constituents	Mineral constituents	Mineral constituents	Mineral constituents	Mineral constituents			
4S/14W-16F 1 S 4- 2-64	65	8.0	74.0	1.85	1.07	4.57	0.13	105	5	0	27.9	6	9.9	0.0	0.1	0.19	30	4.32	14.6	
4S/14W-16L 2 S 10-28-63	74	8.3	76.0	2.00	0.99	4.78	0.13	11.0	5	4	28.1	0	106	0.0	0.2	0.30	29	4.52	15.0	
4S/14W-16L 4 S 4- 2-64	74	7.6	75.0	1.80	1.32	4.74	0.13	1.80	5	0	28.3	10	108	0.0	0.2	0.20	31	4.54	15.6	
4S/14W-17D 1 S 11-13-63	--	8.3	72.00	6.16	3.13	52.0	0	22.61	3.32	4.64	0.21	3.05	39	39	39	39	39	4.55	4415	
5- B-64	--	8.1	8030	6.18	3.32	6.00	23	0	27.30	26.09	0.59	2.62	3.06	80.09	93	93	93	93	2826	4415
4S/14W-17D 2 S 11-13-63	--	8.3	31800	10.48	7.66	56.00	315	0	23.0	15.60	11.680	0.0	0.0	--	--	--	--	--	2909	4639
5- B-64	--	8.4	31300	10.20	7.77	57.00	63	0	24.0	16.60	11.700	0.0	0.0	--	--	--	--	--	5770	5745
4S/14W-17D 4 S 11-14-63	--	8.1	20700	9.60	5.68	33.00	225	0	23.0	9.01	7.500	0.0	0.0	--	--	--	--	--	21082	21038

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silicate	TDS	Total Evap. 80°C
Date sampled	No.	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	F	B	SiO ₂	CoCO ₃					
COASTAL PL. OF LA CO HYDRO SUBUNIT U0500 WEST COAST HYDRO SUBAREA																	
4S/14W-17D 4 S 5- 7-64	--	8.2	21200	1020	50.90	47.45	142.61	1.18	0	238	922	7720	0.0	--	--	--	4921
4S/14W-17D 5 S 11-14-63	--	8.0	41400	560	90.14	365.23	10.48	0	184	2220	15840	0.0	--	--	--	5909	
5- 7-64	--	8.1	41000	572	1370	8400	100	0	186	2240	16100	0.0	--	--	--	7066	
4S/14W-17D 6 S 11-14-63	--	7.9	22400	1888	713	2300	140	0	168	12220	8040	0.0	--	--	--	7649	
5- 7-64	--	7.9	20900	1760	674	2360	26	0	154	1090	7760	0.0	--	--	--	7168	
4S/14W-17E 3 S 11-13-63	--	8.5	82250	624	490	680	155	0	234	97	3280	0.0	--	--	--	3575	
5- 8-64	--	8.4	9430	31.14	40.30	29.57	3.96	4	3.84	2.02	92.50	0.0	--	--	--	5441	
4S/14W-17E 4 S 11-13-63	--	8.4	28900	1084	63.2	473	620	28	0	239	94	3280	0.0	--	--	3525	
					54.09	38.90	26.96	0.72	3.92	1.96	92.50	0.0	--	--	--	5245	
					61.27	226.10	7.67	1	4.03	30.81	319.22	0.0	--	--	--	5773	
					65	18	65	2	1	9	90					20250	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reionance value						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silicate	Total hardness	
Date sampled				No.	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	Evap 05°C	Evap 05°C Computed
WEST COAST HYDRO SUBAREA U05A2																	
4S/14W-17E 4 S 5- 8-64	--	8.4	20700	1030	51.40	63.41	238.27	1.48	0	252	1550	0.0	--	--	--	5745	20513
4S/14W-17E 5 S 11-13-63	--	8.6	943	60	2.99	1.97	4.26	0.79	31	0	287	0	173	0.0	--	248	527
5- 8-64	--	8.4	1530	111	4.4	1.32	1.0	0	276	4	368	0.0	--	--	--	458	805
4S/14W-17F 1 S 12- 4-63	--	8.2	4110	314	132	315	52	--	288	23	1264	2.0	--	--	--	1328	2244
5-25-64	--	8.4	3900	301	124	300	10	0	285	5	1190	0.0	--	--	--	1262	2070
4S/14W-17F 2 S 12- 4-63	--	7.6	11800	732	4.15	1200	145	--	196	383	4100	0.0	--	--	--	3536	7071
5-25-64	--	8.0	10200	810	4.00	438	1100	31	0	168	347	4130	0.0	--	--	3825	6939
4S/14W-17H 1 S 12- 9-63	68	7.9	744	43	2.15	1.07	94	22	--	288	38	100	0.0	--	--	161	452

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent resistance value						Mineral constituents in parts per thousand parts							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silicate	TDS Evap. 80°C	Total Evap. 100°C
Date sampled				Mg	K	Na	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂			CaCO ₃
COASTAL PL OF LA CO HYDRO SUBUNIT U05A2																	
4S/14W-17H 1 S 2- 3-64	66	8.1	740	4.2	2.10	1.07	1.3	100	3	0	292	0	100	0.0	---	---	159
					28	14	4.35	0.08	1	4.79	37						402
						57	57		63								182
3- 3-64	73	8.2	794	4.8	1.23	1.02	1.02	--	0	287	0	118	3.0	---	---	---	427
					30	15	4.43	0.43	55	4.70	41	3.33	0.05				427
4- 2-64	67	8.1	750	4.6	2.30	1.48	1.8	102	5	0	294	4	124	0.0	0.1	0.19	189
					30	18	4.43	0.13	53	4.82	1	3.50					450
						28	53	2	57	57	42						474
4- 8-64	75	8.4	812	4.8	2.40	1.48	1.8	90	8	0	294	0	110	0.0	---	---	194
					30	19	3.91	0.20	49	4.82	61	3.10	0.59				419
5- 4-64	68	8.0	742	--	--	--	--	--	0	279	--	98	--	---	---	---	159
									4.57	4.57	2.76						
6- 9-64	73	8.4	749	4.2	2.10	1.07	1.3	--	0	290	0	101	--	---	---	---	159
										4.75	2.85						
7- 6-64	75	8.8	831	5.2	2.59	1.32	4.98	5	18	250	0	125	0.0	---	---	---	196
					31	16	51	0.13	2	4.10	50	3.53	4.3				437
8- 4-64	75	8.4	782	--	--	--	103	4	0	238	--	108	3.05	---	---	---	167
							4.48	0.10	3.90								

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in						Parts per million equivalents per million percent residual value						Mineral constituents in parts per million					
				Calcium	Magnesium	Sodium	Potassium	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silicate	Total Evap 18°C	Total Evap 10°C	Total hardness	Calcd CaCO ₃			
Date sampled	in °F	in °C	mg	mg	mg	mg	mg	mg	mg	mg	mg	mg	mg	mg	mg	mg	mg	mg			
COASTAL PL OF LA CO HYDRO SUBUNIT U050A																					
4S/14W-17H 1 S 9- 1-64	75	8.2	842	50	2.50	1.32	4.91	0.10	4	289	0	128	0.0	--	--	--	--	191			
4S/14W-17H 2 S 10- 2-63	75	7.8	745	42	1.3	100	6	0	4.74	57	3.61	4.3	--	--	--	--	453				
				2.10	1.07	4.35	0.15	0.15	4.98	0.04	2.88	1	36	--	--	--	159				
				27	14	57	2	--	63	1	36	--	--	--	--	--	414				
11-22-63	72	7.7	929	52	17	112	24	--	236	57	166	0.0	--	--	--	--	200				
				2.59	1.40	4.87	0.61	0.61	3.87	1.19	4.68	4.0	12	--	--	--	544				
				27	15	51	6	--	40	12	48	--	--	--	--	--	159				
1- 6-64	73	8.1	739	42	13	101	3	0	294	0	99	0.0	--	--	--	--	403				
				2.10	1.07	4.39	0.08	0.08	4.82	0.82	2.79	37	--	--	--	--	176				
				27	14	57	1	--	63	--	--	--	--	--	--	--	471				
4- 2-64	65	8.1	750	44	16	105	5	0	283	9	122	0.0	0.2	0.19	31	466					
				2.20	1.32	4.57	0.13	0.13	4.64	0.19	3.44	1	36	--	--	--	159				
				27	16	56	2	--	56	2	42	--	--	--	--	--	410				
4- 8-64	70	7.7	751	42	13	96	7	0	294	2	96	0.0	--	--	--	--	165				
				2.10	1.07	4.17	0.18	0.18	4.82	0.04	2.71	64	1	36	4.01	5740					
				28	14	55	2	--	64	1	36	--	--	--	--	--	16034				
9- 1-64	75	8.5	763	4.3	14	103	4	0	289	0	104	0.0	--	--	--	--	410				
				2.15	1.15	4.48	0.10	0.10	4.74	0.93	38	--	--	--	--	--	159				
				27	15	57	1	--	62	2	91	--	--	--	--	--	179-				
4S/14W-18A 1 S 11- 8-63	--	8.2	21600	1112	720	3850	250	0	188	1010	9000	0.0	--	--	--	--	5740				
				5549	59.21	167.40	6.39	21	58	1	253.80	8	1	1	1	1	1				

TABLE E-

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents				parts per million equivalents per million percent reactivity value				Mineral constituents in parts per million			
				Calcium	Magnesium	Sodium	Sulfur	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica
Date sampled				Na	K	Na	mg	HCO ₃	CO ₃	SO ₄	C ₁	F	B	Si _{1-0.2}	
COASTAL PL OF LA CO HYDRO SUBUNIT U05A0															
WEST COAST HYDRO SUBAREA															
4S/14W-18A 1 S 5- 7-64	--	8.4	24900	1140	769	3850	50	0	194	1110	9240	0.0	--	--	--
				56.89	63.24	167.40	1.28	3.18	23.11	260.57	91				6011
				20	22	58		1		8					16254
4S/14W-18A 2 S 11- 8-63	--	8.3	36200	616	951	7200	490	0	216	1820	13640	0.0	--	--	5452
				30.74	78.21	313.06	12.53	3.54	37.89	384.65	90				24823
				7	18	72	3	1		9					5555
5- 7-64	--	8.4	36000	618	975	7200	160	0	221	1920	13700	0.0	--	--	
				30.84	80.18	313.06	4.09	3.62	39.97	386.34	90				24682
4S/14W-18A 3 S 11- 8-63	--	8.2	13600	1160	451	1740	160	0	186	708	5480	0.0	--	--	4752
				57.88	37.09	75.66	4.09	3.05	14.74	154.54	90				9790
				33	21	43	2	2		9					4562
5- 7-64	--	7.9	13600	1110	435	1420	28	0	150	586	4840	0.0	--	--	8493
				55.39	35.77	61.74	0.72	2.46	12.20	136.49	90				3007
				36	23	40		2		8					4559
6- 1-64	--	8.0	11527	1130	422	1200	25	0	180	10	131	0.0	--	--	
				56.39	34.71	52.18	0.64	2.95	0.21	3.69					3007
4S/14W-18B 1 S 5-18-64	--	8.3	32154	673	1040	7400	100	0	224	1870	14200	0.0	--	--	5960
				33.58	85.53	321.75	2.56	3.67	38.93	400.44	90				25393
4S/14W-18F 1 S 12- 9-63	--	8.1	41200	496	1111	8700	670	--	274	2229	16120	0.0	--	--	5811
				26.75	91.37	378.28	17.13	4.49	46.62	454.58	90				29471
				5	18	74	3	1		9					

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Mineral constituents in						Mineral constituents in							
			Specific conductance (micro-mhos at 25°C)	Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silicate SiO ₂	T.D.S. Evap 10°C
COASTAL PL. OF LA CO HYDRO SUBUNIT U0500 WEST COAST HYDRO SUBAREA																
4S/14W-18F 1 S 5-19-64	--	8.5	35900	520	1130	8950	240	16	2180	16300	0.0	--	--	--	--	5949
4S/14W-18F 6 S 7-29-64	--	8.1	14500	762	333	2160	36	0	193	45.39	459.66	90	--	--	--	29454
8-24-64	--	7.8	14000	38.02	27.39	93.92	0.92	3.16	13.03	143.26	90	--	--	--	--	3273
9-29-64	--	7.9	14700	38.76	325	2090	46	0	189	560	5040	0.0	--	--	--	9092
4S/14W-18H 1 S 11-12-63	--	8.2	22300	1050	839	3850	315	0	195	584	5130	0.0	--	--	--	3097
5- 6-64	--	8.4	25600	1040	863	4030	63	0	213	1110	9560	0.0	--	--	--	9168
4S/14W-18H 2 S 11-12-63	--	8.5	31300	52.40	69.00	167.40	8.05	3.51	21.44	267.34	91	--	--	--	--	6075
5- 6-64	--	8.5	30400	51.90	70.97	175.22	1.61	3.49	23.11	269.59	91	--	--	--	--	16669

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Chloride	Sulfate	Bicarbonate	Carbon dioxide	Nitrate	Fluoride	Boron	Silicon	Total hardness °C	Evd (°SC)
Date sampled	C. o	M g	N a	K	CO ₃	HCO ₃	SO ₄	NO ₃	F	B	SiO ₂	SiO ₂	SiO ₂	CaCO ₃	CaCO ₃	CaCO ₃	CaCO ₃
COASTAL PL. OF LA CO. HYDRO SUBUNIT U05A2																	
4S/14W-18H 2 S 5-29-64	--	8.3	26800	766	805	5800	50	234	1570	11500	0.0	--	--	--	--	--	5225
4S/14W-18H 3 S 11-12-63	--	8.5	3940	28	108	340	60	0	272	109	1140	0.0	--	--	--	--	20606
5- 6-64	--	8.7	3360	243	93	326	14	21	317	87	962	0.0	--	--	--	--	514
5-29-64	--	8.4	3030	12.13	7.65	14.17	0.36	0.70	5.20	1.81	27.13	--	--	--	--	--	990
4S/14W-18J 1 S 11-29-63	--	7.8	35600	740	958	7000	67	0	220	1840	13500	0.0	--	--	--	--	1902
5-11-64	--	8.2	31200	717	962	7200	75	0	216	1900	13600	0.0	--	--	--	--	5791
4S/14W-18K 1 S 11-29-63	--	7.7	38000	764	1141	7400	71	0	240	1910	14500	0.0	--	--	--	--	24560
5-11-64	--	8.3	33200	702	1060	8400	65	0	212	1960	14700	5.5	--	--	--	--	6603
				35.78	79.11	313.06	1.92	1	3.54	39.56	383.52	90	--	--	--	--	25904
				8	18	73		1									6115
				38.12	93.84	321.75	1.82	3.93	39.77	408.90	414.54	90					26997
				8	21	71		1									
				35.03	87.17	365.23	1.66	3.47	40.81	414.9	0.09						
				7	18	75		1									

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reacitance value				Mineral constituents in			
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Nitrogen	Fluoride	Boron
Date sampled				Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	F	B	SiO ₂	TDS Total Evap. (55°C) & Dissolved Solids Computed
COASTAL PL OF LA CO HYDRO SUBUNIT TU05AO															
4S/14W-18P 1 S	--	8.0	39100	632	1082	8000	580	--	248	2016	15360	0.0	--	--	6031
12- 5-63				31.54	88.98	347.84	14.83	7	4.06	41.97	433.15	90			27792
5-13-64	--	8.5	35000	664	1120	8920	170	0	242	2690	15500	0.0	--	--	6267
				33.13	92.11	387.84	4.35	6	3.97	56.01	437.10	11			29183
4S/14W-18Q 1 S	--	8.0	29200	1256	912	4400	290	--	186	1128	11200	0.0	--	--	6889
12- 5-63				62.67	75.00	191.31	7.42	19	3.05	23.48	315.84	7			19277
5-13-64	--	8.2	25900	1280	936	4700	83	0	178	1160	11300	0.0	--	--	7048
				63.87	76.98	204.36	2.12	18	2.92	24.15	318.66	1			19547
4S/14W-18Q 2 S	--	7.8	45900	560	1213	10000	580	--	156	266.7	18320	0.0	--	--	6390
12- 5-63				27.94	99.76	434.80	14.83	5	2.56	55.53	516.62	10			33417
5-13-64	--	8.2	40700	544	1200	10000	225	0	156	254.0	18300	0.0	--	--	6297
				27.15	98.69	434.80	5.75	5	2.56	52.88	516.06	1			32886
4S/14W-18Q 3 S	--	7.9	25900	952	754	4250	245	--	308	860	9700	0.0	--	--	5480
12- 5-63				47.50	62.01	184.79	6.26	16	5.05	17.91	273.54	2			16912
5-13-64	--	8.1	23000	969	791	4430	63	0	268	881	9900	0.0	--	--	5675
				48.35	65.05	192.62	1.61	16	4.39	18.34	279.18	1			17166

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reacancy value								Mineral constituents in parts per million					
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Boron	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Total hardness	
Date sampled				Mg	Na	K	CO ₂	HCO ₃	SO ₄	Cl	F	B	Si-O ₂	Euro 80°C	Euro 105°C	0.5°C	Comasured
COASTAL PL OF LA CO HYDRO SUBUNIT U05A0																	
4S/14W-20G 1 S 11-21-63	--	8.1	13700	512	446	1840	34	0	576	0	4760	0.0	--	--	--	3114	
				25.55	36.68	80.00	0.87	1	9.44	7	134.23	93	--	--	--	7875	
				18	26	56										2942	
5-12-64	--	8.3	11800	415	463	2000	40	0	363	0	4800	0.0	--	--	--		
				20.71	38.08	86.96	1.02	1	5.95	4	135.36	96	--	--	--	7896	
4S/14W-20G 2 S 11-21-63	--	8.3	1572	109	51	152	8	0	436	0	332	0.0	--	--	--	482	
				5.44	4.19	6.61	0.20	1	7.15	43	9.36	57	--	--	--	866	
				33	25	40										837	
5-12-64	--	8.7	2577	190	88	192	12	34	437	0	612	0.0	--	--	--	1343	
				9.48	7.24	8.35	0.31	1	7.16	28	17.26	68	--	--	--	1185	
4S/14W-20G 3 S 11-21-63	--	8.2	1583	105	405	148	5	0	370	0	340	0.0	--	--	--	1929	
				5.24	33.31	6.44	0.13	1	6.06	39	9.59	61	--	--	--	463	
				12	74	14										868	
5-12-64	--	8.6	1639	113	44	162	6	12	303	0	382	0.0	--	--	--	1647	
				5.64	3.62	7.04	0.15	1	4.97	31	10.77	67	--	--	--	2694	
4S/14W-20G 4 S 11-21-63	--	8.1	4823	424	143	385	13	0	288	123	1464	0.0	--	--	--	1890	
				21.16	11.76	16.74	0.33	1	4.72	10	41.28	85	--	--	--	2868	
5-12-64	--	8.3	4810	470	174	350	15	0	221	0	1750	0.0	--	--	--		
				23.45	14.31	15.22	0.38	1	3.62	29	49.35	93	--	--	--		
				44	27												

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million									
			Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Total hardness Evap 180°C Evap 105°C Computed				
Date sampled			Na	K	CO ₂	HCO ₃	SO ₄	Cl	F	B	SiO ₂	5.02						
COASTAL PL OF LA CO HYDRO SUBUNIT U05A2																		
4S/14W-21N 1 S 4- 6-64	--	7.5	910	66	3.3	102	0	4.22	1	131	0.0	0.2	0.30	39	592	300		
4S/14W-27N 1 S 8- 3-64	66	7.8	1060	66	3.9	4.43	0.20	6.92	0.02	3.69	35				588	588	325	
4S/14W-28G 1 S 8- 3-64	68	7.8	1040	80	32	120	7	0	312	92	164	0.0	0.2	0.29	--	658	642	
4S/14W-28J 1 S 8- 3-64	68	7.8	1575	147	5.92	117	10	0	414	32	156	0.0	0.2	0.33	--	656	331	
4S/14W-35E 6 S 7-15-64	78	7.6	875	58	20	104	5	0	6.79	0.67	4.40					631		
4S/14W-35F 2 S 10-28-63	--	7.6	2.89	1.64	3.2	4.52	0.13	5.79	0.06	3.27	34					535	227	
4S/14W-36G 2 S 6-11-64	--	8.7	1880	1480	1.07	34	195	0.7	31	342	209	197	0.0	0.2	0.58	27	978	407
			5.34	2.80	2.80	8.48	0.18	1.03	5.61	4.35	5.56						976	
			3.2	1.7	50	0.1	6	34	26	34							480	
			2.50	1.81	2.2	1.06	5	0	350	4	114	0.0	0.2	0.26	30	500	216	
			2.8	2.0	4.61	0.13	1	5.74	0.08	3.21	1	36					503	
			16	16	12.26	0.36	1.10	6.72	0.06	10.72	58						280	
			14	14	6.7												1003	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value				Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Chloride	Sulfate	Nitrate	Fluoride	Boron	Silica	T.D.S.	Total Evap (B/C)
Date sampled				CO ₃	K	NO ₃	SO ₄	HCO ₃	Cl	B	SiO ₂		Evap (O/C)	Computed	
COASTAL PL OF LA CO HYDRO SUBUNIT U05A2															
4S/14W-36G 3 S	--	8.5	597	0.60	0.58	7	115	0.15	0.60	300	0	34	0.0	--	--
5-12-64				9	9	79	79	2	9	4.92	0.96	0	0.15	--	340
4S/14W-36G 4 S	--	8.5	937	2.25	1.64	20	136	8	14	348	0	130	0.0	--	--
4-16-64				23	16	59	59	2	5	5.70	3.67	37	3.67	--	195
4S/14W-36H 1 S	76	8.0	805	25	9	136	8	0	342	0	89	1.8	0.4	0.50	524
10-27-63				53	15	5.91	0.20	2	5.61	2.51	31	2.51	0.03	26	100
5S/12W-3C 1 S	--	8.1	491	1.25	0.74	114	2	0	292	0	32	0.0	--	--	442
9-28-64				10	3	4.96	0.05	1	84	0.90	16	16	--	--	464
5S/12W-3F 2 S	--	8.3	7400	64	116	1440	50	0	313	1.02	2420	0.0	--	--	306
8-25-64				3	19	9.54	62.61	1.28	5.13	2.12	68.24	2.13	90	--	38
5S/13W-1A 1 S	--	8.9	2230	36	33	430	11	39	612	0	425	0.0	--	--	306
6-4-64				1	80	2.71	18.70	0.28	1.30	10.03	11.99	51	--	--	637
5S/13W-2J 3 S	--	8.4	10200	120	243	1780	67	0	366	4.12	3280	0.0	--	--	4346
5-6-64				5	99	19.98	77.39	1.71	6.00	8.58	92.50	8	86	--	226
5S/13W-3P17 1 S	--	9.1	1830	0	4	440	8	55	678	54	198	0.0	--	--	1275
6-29-64				0	33	19.13	0.20	1.83	11.11	1.12	5.58	57	28	--	1300
				2	97	1								--	6082
														--	17
														--	1092

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				Parts per million equivalents per million percent reductance				Mineral constituents in parts per million					
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfur dioxide	T.D.S.	
Date sampled				CO ₃	Mg ₂	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	CO ₂	Total hardness °C		
COASTAL PL OF LA CO HYDRO SUBUNIT U0500 WEST COAST HYDRO SUBAREA																	
5S/13W- 3P18 S 5- 5-64	--	8.0	48900	680	1340	9900	255	0	541	2500	18700	0.0	--	--	7212		
5S/13W- 3P19 S 4- 1-64	--	8.1	47300	424	1210	10000	6.52	8.87	52.05	52.34	90	--	--	3364.1	6038		
5S/13W- 4E 1 S 4-30-64	--	7.9	46100	1110	1420	9600	9.72	0	203	2540	18200	0.0	--	--	3285.4	8615	
5S/13W- 4E 2 S 3-23-64	--	8.1	8030	238	220	1175	23	0	422	2410	18700	0.0	--	--	3358.7	1500	
5S/13W- 5C 1 S 6-19-64	--	8.8	644	11	10	114	8	19	428	5	2620	4.0	--	--	4495	69	
5S/13W- 5C 2 S 4-27-64	--	7.9	40200	816	0.55	0.82	4.96	0.20	0.63	4.41	0.10	73.88	0.06	--	--	362	6770
5S/13W- 6B 2 S 4-24-64	--	7.4	45600	488	1290	9850	100	0	352	2060	15900	0.0	--	--	2863.9	6527	
5S/13W- 6D 1 S 10- 1-63	33	8.4	2370	125	63	260	12	0	568	0	508	0.0	--	--	3211.7	571	
															1247		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity value								Mineral constituents in parts per million						
				Colloidal Magnesium Ca	Sodium Mg	Potassium Na	Sulfum K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Barium B	Fluoride F	Silico SiO ₂	Total hardness as CaCO ₃ Computed		
COASTAL PL OF LA CO HYDRO SUBUNIT 050A2																		
WEST COAST HYDRO SUBAREA																		
5S/13W- 6D 1 S 10-29-63	--	8.0	2300	30 1.50	17 1.40	465 20.22	1.2 0.31	0 8.92	3 0.06	544 14.30	0.0 1.30	1.0 6.1	1.90 0.0	26 --	1368 1330			
11- 5-63	33	8.5	2380	30 1.50	18 1.48	450 19.57	1.1 0.28	0 9.21	0 3.39	562 14.33	0 6.1	0.0 6.1	-- 0.0	-- --	149 1293			
12- 4-63	34	8.4	2390	51 2.54	22 1.81	444 19.31	-- 8.2	0 39	0 9.47	578 14.55	0 6.1	0.0 6.1	-- 0.0	-- --	218 1317			
1- 6-64	31	7.8	2240	30 1.50	18 1.48	415 18.04	9 0.23	0 8.62	526 0.35	17 12.75	0.0 2	0.0 5.9	-- --	-- --	149 1200			
2- 5-64	86	7.9	2280	61 3.04	33 2.71	390 16.76	8 0.20	0 8.85	540 0.29	14 14.16	0.0 1	0.0 6.1	-- --	-- --	288 1274			
3- 3-64	82	8.2	2320	27 1.35	19 1.06	460 20.00	10 0.26	0 8.87	541 0.21	10 13.76	1.0 0.02	-- 1	-- 6.0	-- 0.02	146 1281			
4- 6-64	89	8.3	2200	36 1.80	15 1.23	465 20.22	11 0.28	7 0.23	541 8.87	9 0.19	514 14.49	2.1 0.03	1.0 1	1.70 6.1	33 1361			
5- 6-64	82	8.0	2280	--	--	--	--	--	0 1.37	544 8.92	-- 1	493 13.90	-- 0	-- --	150 1312			

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reflectance value				Mineral constituents in parts per million								
				Calcium C a	Magnesium M g	Sodium N a	Potassium K	Carbon dioxide CO ₂	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica S-I-O ₂	TDS Evap 105°C
COASTAL PL OF LA CO HYDRO SUBUNIT U0500 WEST COAST HYDRO SUBAREA																
5S/13W-6D 1 S 6-3-64	31	8.5	2300	1.60	1.56	19.57	0.28	0	546	0	504	0.0	--	--	--	158
	32	8.5	2290	1.60	1.56	19.57	0.31	0	549	11	500	0.0	--	--	--	1284
7-6-64										9.00	0.23	14.10				158
	32	8.3	2390	--	--	19.57	0.26	0	550	--	504	--	--	--	--	1294
8-5-64										9.01	14.21					152
	32	8.8	2390	1.60	1.32	20.87	0.26	10	480	8	494	0.0	--	--	--	146
9-2-64										1.00	7.87	0.17	13.93			1306
	5S/13W-9B 2 S 3-25-64	--	8.2	37700	4.32	944	76.00	133	592	168	1410	0	--	--	--	4963
					21.56	77.63	330.45	3.440	19.73	2.75	29.36					
	5S/13W-11G 1 S 5-20-64	--	8.7	958	0.7	3	225	2	459	0	84	0.0	--	--	--	30
					0.35	0.25	9.78	0.05	0.47	7.52	2.37					561
	5S/13W-11G 2 S 6-9-64	--	8.1	48800	4.99	1310	10500	210	0	289	2600	19100	0.0	--	--	6637
					24.90	107.73	456.54	5.37	4.74	54.13	538.62	90				34361

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity				Mineral constituents in parts per million equivalents per million percent value				Mineral constituents in parts per million				
				Ca	Mg	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silicate	TDS
COASTAL PL OF LA CO HYDRO SUBUNIT U05A0																
1S/15W-33D 4 S 7-15-64	70	7.0	881	80	3.99	4.1	5.4	0	2.68	1.65	66	8.0	0.5	0.08	--	637
2S/14W-5D 8 S 10- 6-63	--	7.5	1250	100	4.99	3.62	88	4	0	440	1.86	0.13	1	--	--	549
2- 4-64	--	8.2	1040	51	4.00	2.54	4.2	11.2	3	0	288	156	100	7.0	--	431
4-14-64	--	7.9	1180	83	4.14	3.54	4.87	0.87	0.08	4.72	3.25	2.82	0.11	--	--	733
6-17-64	--	8.4	1050	61	3.04	2.96	5.00	0.10	0.10	4.3	30	26	1	--	--	300
2S/14W-19C 1 S 1- 7-64	70	8.2	979	58	2.89	2.38	1.15	4	0	408	84	100	0.0	--	--	613
4-20-64	70	8.4	1080	78	3.89	2.63	5.22	0.22	0.08	6.69	1.75	2.82	1.30	--	--	384
5- 5-64	70	7.9	962	--	--	--	--	--	--	59	16	25	14	--	--	694
L A SAN GABRIEL RIVER HYDRO UNIT U0500																
1S/15W-33D 4 S 7-15-64	70	7.0	881	80	3.99	4.1	5.4	0	2.68	1.65	66	8.0	0.5	0.08	--	637
2S/14W-5D 8 S 10- 6-63	--	7.5	1250	100	4.99	3.62	88	4	0	440	1.86	0.13	1	--	--	549
2- 4-64	--	8.2	1040	51	4.00	2.54	4.2	11.2	3	0	288	156	100	7.0	--	431
4-14-64	--	7.9	1180	83	4.14	3.54	4.87	0.87	0.08	4.72	3.25	2.82	0.11	--	--	300
6-17-64	--	8.4	1050	61	3.04	2.96	5.00	0.10	0.10	4.3	30	26	1	--	--	613
2S/14W-19C 1 S 1- 7-64	70	8.2	979	58	2.89	2.38	1.15	4	0	408	84	100	0.0	--	--	384
4-20-64	70	8.4	1080	78	3.89	2.63	5.22	0.22	0.08	6.69	1.75	2.82	1.30	--	--	694
5- 5-64	70	7.9	962	--	--	--	--	--	--	59	16	25	14	--	--	613

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reaction value				Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfur dioxide	Total hardness
Date sampled				No.	No.	No.	No.	CO ₃	HCO ₃	SO ₄	Cl	F	SiO ₂	S.O.2	Evap 10°C os. Compounded	CaCO ₃
COASTAL PL OF LA CO HYDRO SUBUNIT U05A0																
2S/14W-19C 1 S 9- 1-64	72	8.2	967	74	31	--	--	0	377 6.18	--	72	--	--	--	--	312
2S/14W-19C 2 S 10- 1-63	72	8.2	1160	97	35	108	6	0	410 6.72	134 2.79	119 3.36	0.0	--	--	--	386
2- 4-64	70	8.1	1020	79	32	99	3	0	278 5.2	129 2.22	98 26	0.0	--	--	--	329
4-2-64	70	8.6	1240	86	36	150	14	20	420 6.88	118 2.46	144 4.06	3.0	--	--	--	363
6-10-64	70	8.3	1170	100	37	--	--	--	388 6.36	137 2.85	120 3.38	--	--	--	--	402
2S/15W-11F 3 S 10- 6-63	--	7.5	1170	88	43	83	5	0	356 5.83	219 4.56	86 2.43	0.0	--	--	--	397
10-23-63	--	7.4	1040	4.39	3.54	3.61	0.13	31	45 5.43	45 4.23	19 1.89	3.2 0.05	0.4	0.25	31	699
2- 9-64	--	8.3	1090	88	33	102	3	0	316 5.18	210 4.37	72 16	7.0	--	--	--	371
				4.39	2.71	4.43	0.08	38	44 4.37	2.03 1.7	0.11 1					691
				3.8	2.7	3.5	1									355
				3.8	2.3	3.8	1									670

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents				parts per million equivalents per percent reaction				Mineral constituents in parts per million			
				Calcium C _a	Magnesium M _g	Sodium N _a	Potassium K	Carbonate C _{O₃}	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silicate SiO ₂
COASTAL PL OF LA CO HYDRO SANTA MONICA HYDRO SUBAREA U05A3															
2S/15W-11F 3 S 4-19-64	--	7.6	1080	134 6.69	12 0.99	97 4.22	0.15 0.35	0	355 5.82	209 4.35	71 2.00	0.0 0.04	0.28 0.04	33	704
6-17-64	--	8.3	1070	87 4.34	40 3.29	97 4.22	5 0.13	0	340 5.57	198 4.12	76 2.14	0.0 0.04	--	--	737
2S/15W-14G 2 S 10- 1-63	70	8.2	1500	132 6.59	51 4.19	128 5.57	3 0.08	0	450 7.38	221 4.60	153 20.0	0.0 0.32	--	--	382
11-14-63	--	7.8	1500	127 6.34	52 4.28	124 5.39	2 0.05	0	432 7.08	227 4.44	144 36.0	0.0 0.58	--	--	672
1- 7-64	68	8.0	1500	129 6.44	52 4.28	130 5.65	1 0.03	0	414 6.79	218 4.54	148 4.17	0.0 0.97	--	--	539
2- 4-64	70	8.1	1380	104 5.19	52 4.28	130 5.65	2 0.05	0	350 5.74	220 4.58	128 3.61	0.0 1.29	--	--	531
3- 3-64	68	8.1	1470	126 6.29	54 4.44	139 6.04	--	0	436 7.15	223 4.64	144 4.06	0.0 0.68	--	--	929
4-10-64	70	8.3	1510	126 6.29	53 4.36	147 6.39	5 0.13	0	452 7.41	226 4.71	152 4.29	0.0 0.62	--	--	533
L A SAN GABRIEL RIVER HYDRO UNIT U0500															

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				Mineral constituents in				Mineral constituents in					
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Silica	Total TDS at 0°C Edu'd	TDS at 0°C Calcd	Total hardness CaCO ₃
Date sampled				CO ₃	Mg	K	Na	HCO ₃	SO ₄	Cl	NO ₃	F	Boron	Silica			
COASTAL PL OF LA CO HYDRO SUBUNIT U05A0 SANTA MONICA HYDRO SUBAREA																	
25/15W-14Q 2 S 5- 5-64	68	7.8	1470	--	--	--	0	4.44	--	144	--	--	--	--	--	--	550
6-10-64	66	8.3	1500	133	4.2	--	0	4.36	2.14	148	--	--	--	--	--	--	505
7- 7-64	70	8.4	1500	130	65	124	0	4.60	2.22	148	44.0	--	--	--	--	--	592
25/15W-22B 8 S 11-14-63	--	7.4	1790	143	51	192	4	--	4.80	351	110	40.0	--	--	--	--	567
3- 3-64	68	8.0	1770	135	58	179	--	--	4.68	350	152	2.5	--	--	--	--	576
4-10-64	--	8.3	1853	146	59	208	7	0	5.24	366	148	70.0	--	--	--	--	607
7- 7-64	70	8.6	1790	137	59	160	4	11	350	343	148	90.0	--	--	--	--	1262
25/15W-22E 3 S 2-13-64	--	7.5	10100	594	311	1230	14	0	316	815	2040	0.0	--	--	--	--	585
L A SAN GABRIEL RIVER HYDRO UNIT U0500																	
																	1124
																	1107
																	6159
																	2763

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents				parts per million equivalents per percent reacione value				Mineral constituents in parts per million				
				Calcium C _o	Magnesium M _g	Sodium N _a	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silicate SiO ₂	
COASTAL PL OF LA CO HYDRO SUBUNIT 05A3																
2S/15W-22E 3 S	--	7.9	9630	584	29.14	335	1140	10	0	324	738	3040	0.0	--	--	
7-16-64				27	27	27	49.57	0.26	5	5.31	15.37	85.73	14	81	6006	
9-30-64	70	7.6	9000	553	330	1180	20	0	410	745	3071	0.0	0.1	0.39	--	
2S/15W-22E 4 S	--	7.5	3790	174	108	486	5	0	6.72	15.51	86.60	6	14	80	6930	
2-13-64				8.68	8.88	21.13	0.13		7	172	390	980	0.0	--	6101	
9-30-64	71	7.9	3400	206	98	470	6	0	2.82	8.12	27.64	21	72	--	879	
2S/15W-22E 5 S	--	7.7	3888	189	102	540	4	0	325	398	911	0.0	0.1	0.52	--	
2-13-64				9.43	8.39	23.48	0.10		14	5.33	8.29	25.69	21	65	--	
7-16-64	--	7.9	3790	185	94	480	2	0	360	617	760	85.0	--	--	2228	
9-30-64				9.23	7.73	20.87	0.05		14	5.90	12.85	21.43	31	52	2408	
2S/15W-23A 1 S	--	7.6	3390	184	102	620	7	0	379	524	954	21.0	0.1	0.68	918	
11-6-63				9.18	8.39	26.96	0.18		14	6.21	10.91	26.80	14	61	2249	
LA SAN GABRIEL RIVER HYDRO UNIT U0500				21	19	60			13	5.36	312	1078	23.0	0.6	1.45	19
				14.62	8.64	19.57	0.05		20	4.6	6.50	30.40	13	15	2445	3026
				34								71				1164

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million								
				Calcium C _a	Magnesium M _g	Sodium N _a	Sodium Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Sulfur S	Total Evap. Ba°c		
COASTAL PL OF LA CO HYDRO SUBUNIT U05A3																		
2S/15W-23A 1 S 4- 1-64	--	7.4	3800	27.9	8.3	20.44	0.13	0	34.0	353	9.75	33.0	0.8	1.12	19	2730	1038	
2S/15W-23A 6 S 11- 8-63	6.4	7.9	2580	14.4	9.6	30.2	6	0	5.47	7.35	27.50	0.53	1	6.7	1	2386	755	
65	8.0	2500	7.19	7.90	13.13	0.15	0	27.0	3.95	5.55	0.0	0.6	0.85	25	1980	1657		
11- 8-63	6.5	7.5	2650	16.7	84	29.8	7	0	4.43	8.22	15.65	29	55	0.0	0.6	24	1926	763
4- 6-64	6.5	7.5	2650	8.33	6.91	12.96	0.18	0	33.2	391	54.0	0.0	0.6	0.85	24	1676	812	
2S/15W-23C 5 S 1- 7-64	6.8	8.1	2380	20.0	8.0	23.5	2	0	5.44	8.14	15.23	28	53	0.0	0.6	23	1996	829
4- 10-64	6.8	7.8	2300	9.98	6.58	10.22	0.05	7.08	10.14	8.01	1.61	30	6	0	0.72	23	1828	1600
5- 5-64	6.6	7.5	3360	9.58	6.25	9.57	0.15	7.28	10.04	7.56	1.13	29	4	0	0.72	23	1532	792
9- 1-64	7.0	8.2	2330	---	---	---	---	0	4.44	4.82	268	70.0	---	---	---	---	1092	744

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents percent reaction value				Mineral constituents in parts per million									
				Magnesium	Sodium	Potassium	Chloride	Sulfate	Nitrate	Fluoride	Boron	Silica	TDS	Total hardness	Evap 105°C as CaCO ₃		
Date sampled				Na	K	CO ₃	HCO ₃	SO ₄	NO ₃	F	SiO ₂	B					
COASTAL PL. OF LA CO HYDRO SANTA MONICA HYDRO SUBUNIT U05A3																	
25/15W-23J 4 S	65	7.6	3150	293	137	345	4	0	634	851	447	17.0	0.6	0.95	19	2590	1296
11- 8-63				14.62	11.27	15.00	0.10	10.39	17.72	12.61	0.27						
				36	27	37		25	43	31							
4-14-64	67	8.0	3700	253	168	425	5	0	371	917	663	44.0	0.4	0.79	18	2916	1323
				12.62	13.82	18.48	0.13	6.08	19.09	18.70	0.71						
				28	31	41		14	43	42							
25/15W-23N 1 S	--	7.3	4050	331	158	457	7	0	512	784	911	0.0	0.2	0.98	14	3126	1477
10-22-63				16.52	12.99	19.87	0.18	8.39	16.32	25.69							
				33	26	40		17	32	51							
11- 8-63	--	7.3	4400	341	195	520	7	0	545	812	1064	0.0	0.4	1.04	16	3692	1654
				17.02	16.04	22.61	0.18	8.93	16.91	30.00							
				30	29	40		16	30	54							
--	7.6	5050	340	186	520	6	0	540	813	1080	0.0	--	--	--	--	--	1615
				16.97	15.10	22.61	0.15	8.85	16.93	30.46							
				31	28	41		16	30	54							
12-10-63	63	7.7	4681	330	178	500	29	--	526	795	1000	0.0	--	--	--	--	1557
				16.47	14.64	21.74	0.74	8.62	16.55	28.20							
1- 7-64	64	8.1	4890	408	225	500	5	0	424	780	1360	0.0	--	--	--	--	3091
				20.36	18.50	21.74	0.13	6.95	16.24	38.35							
				34	30	36		11	26	62							
2- 4-64	64	8.1	4550	316	175	495	4	0	596	739	940	19.0	--	--	--	--	3486
				15.77	14.39	21.52	0.10	9.77	15.39	26.51	0.31						
				30	28	42		19	30	51							

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity						Mineral constituents in parts per million							
				Calcium C _o	Magnesium M _g	Sodium N _a	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Iodate I	Fluoride F	Boron B	Sulfur S	
COASTAL PL OF LA CO HYDRO SUBUNIT U05A0																	
2S/15W-23N 1 S	63	7.8	5810	412	230	582	---	0	518	808	1400	0.0	---	---	---	---	1976
3- 3-64			20.56	18.02	25.31	39	8.49	16.82	39.48	13	26	61					3687
			32	29													4512
4- 6-64	65	7.4	5300	457	224	630	8	0	541	821	1564	0.0	0.2	0.80	14		2063
			22.80	18.42	27.39	40	8.87	17.09	44.10	13	24	63					3985
			33	27													4170
4-10-64	64	7.9	6460	444	264	670	12	0	532	878	1640	0.0	0.0	---	---	---	2195
			22.16	21.1	29.13	0.31											
			30	30													
5- 5-64	64	7.5	6250	--	--	--	--	0	532	--	1556	--	--	--	---	---	
									8.72		43.88						
6- 9-64	61	7.9	7700	580	235	---	0	532	843	2180	---	---	---	---	---	---	2415
			28.94	19.33					8.72	17.55	61.48						
7- 7-64	66	8.3	5780	480	271	640	8	0	420	830	1760	0.0	0.0	---	---	---	2314
			23.95	22.29	27.83	0.20			6.88	17.28	49.63						
			32	30													
8- 4-64	73	7.9	9690	672	390	---	--	--	506	--	2800	--	--	--	--	--	4196
			33.53	32.07					8.29		78.96						3283
9- 1-64	68	7.7	10400	600	481	---	--	0	494	--	3200	--	--	--	--	--	3478
			29.94	39.56					8.10		90.24						

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reactivity				Mineral constituents in parts per million			
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Irotoe	Sulfide	Boron
Date sampled	Sampled in °F			Na	K	CO ₃	HCO ₃	CO ₃	HCO ₃	NO ₃	SiO ₂	B	Evap 18°C	Evap 105°C	Computed CO ₃
COASTAL PL OF LA CO HYDRO SUBUNIT U05A3															
2S/15W-23N 1 S 9-23-64	--	7•2	11400	808	446	1220	10	474	938	3520	0•0	--	--	--	3853
				40•32	36•68	53•05	0•26	7•77	19•53	99•26					
				31	28	41		6	15	78					
2S/15W-240 1 S 11- 6-63	--	8•0	2890	145	71	425	3	0	377	247	709	6•8	0•6	1•50	17
				7•24	5•84	18•48	0•08		6•18	5•14	19•99	0•11			2026
				23	18	58		20	16	64					655
66 7•5	66	7•5	2900	119	81	430	3	0	428	250	673	6•7	0•6	1•10	19
				5•94	6•66	18•70	0•08		7•01	5•01	18•98	0•11			
				19	21	60		22	17	61					
4- 3-64															1794
2S/15W-24D 5 S 4- 3-64	66	8•2	1300	56	48	160	10	0	220	198	215	0•0	0•2	0•28	11
				2•79	3•95	6•96	0•26		3•61	4•12	6•06				
				20	28	50	2	26	30	44					337
2S/15W-27L 1 S 2-10-64	--	8•1	2500	92	72	330	13	0	537	6	560	50•0	--	--	807
				4•59	5•92	14•35	0•33		8•80	0•12	15•79	0•81			
				18	24	57	1	34		62	3				
7-14-64	--	8•1	2760	95	76	384	8	0	583	49	628	0•0	--	--	526
				4•74	6•25	16•70	0•20		9•56	1•02	17•71				
				17	22	60	1	34	4	63					
2S/15W-27L 2 S 2-10-64	--	8•1	24000	248	635	5600	115	0	700	934	2960	0•0	--	--	1527
				12•38	52•22	243•49	2•94		11•47	19•45	280•87				
				4	17	78	1		4	6	90				
4S/12W-23C 1 S 9- 1-64	--	8•7	320	14	2	60	1	7	128	12	6	0•17	--	--	3233
				0•70	0•16	2•61	0•03	0•23	2•10	0•25					
															17836
															43
															216

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalent percent						Mineral constituents in parts per million							
				Calcium C. O.	Magnesium Mg. O.	Sodium Na	Potassium K	Carbon CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Equiv. B.O.C. borders, S.O ₂	
COASTAL PL OF LA CO HYDRO SUBUNIT U0500																	
4S/12W-23C 1 S 9-29-64	--	8.7	326	20	4	4.7	2	14	132	15	10	0.28	--	--	18	67	
4S/12W-23K 3 S 12-31-63	--	8.5	340	10	2	6.0	1	5	149	35	12	0.34	--	--	18	265	33
1-28-64	--	8.6	340	12	2	6.5	0.03	0.20	2.44	0.73	0.73	0.37	--	--	16	192	38
3- 3-64	--	8.6	350	11	1	6.4	2	6	132	28	13	0.37	--	--	17	201	32
6-30-64	--	8.6	335	10	3	6.2	1	7	2.36	16	13	0.37	--	--	16	224	38
4S/12W-24M 8 S 8- 4-64	--	8.7	355	15	2	5.8	2	7	142	15	11	0.31	--	--	17	190	46
8-27-64	--	8.4	367	1.15	0.16	2.52	0.05	0.23	2.33	0.15	0.59	0.51	--	--	19	245	66
4S/12W-28H12 S 10- 1-63	--	8.8	335	5	2	5.8	2	0	2.74	19	18	0.42	--	--	15	220	21

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million						
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Silicate	Total dissolved solids	Total hardness
Date sampled				Mg	K	Na	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	B	S.O ₂	Evap. (°C)	Calculated CaCO ₃	
COASTAL PL OF LA CO HYDRO SUBUNIT U05A3																
4S/12W-28H12 S 10-29-63	--	8.9	335	5	0.25	0.16	2.78	0.03	64	1	10	168	8	16	--	21
	--	8.8	342	5	0.25	0.08	3.04	0.03	70	1	8	170	10	16	--	283
12-31-63	--	8.8	345	5	0.25	0.08	3.09	0.03	71	1	8	170	10	16	--	17
	--	8.8	348	5	0.25	0.08	3.13	0.03	72	1	10	170	10	15	--	260
6-3-64	--	8.8	348	5	0.25	0.08	3.13	0.03	72	1	10	170	10	15	--	17
	--	8.6	345	6	0.30	0.08	3.13	0.03	72	1	6	176	5	17	--	220
6-30-64	--	8.9	345	5	0.25	0.08	3.04	0.03	70	1	11	170	5	10	--	17
	--	8.6	345	6	0.30	0.08	3.13	0.03	72	1	6	176	5	17	--	241
8-4-64	--	9.0	356	5	0.25	0.08	2.83	0.03	65	1	8	176	10	5	--	17
	--	9.0	356	5	0.25	0.08	2.83	0.03	65	1	8	176	10	5	--	21
9-29-64	--	9.0	356	5	0.25	0.08	2.83	0.03	65	1	8	176	10	5	--	17

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reionance value				Mineral constituents in parts per million			
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silico
Date sampled				mg	mg	mg	mg	mg	mg	mg	mg	mg	mg	mg	Total hardness Evap 180°C Evap 105°C Computed CoCO ₃
COASTAL PL OF LA CO HYDRO SUBUNIT U05A0															
HOLLYWOOD HYDRO SUBAREA															
1S/14W-10N 1 S 10-14-63	--	7.3	320	1.35	0.49	1.52	0.10	0	74	73	0.0	1.0	0.26	3	204
				39	14	44	3	37	46	17	0.54				92
7- 6-64	--	7.7	433	1.40	0.49	2.00	0.10	0	45	110	30	0.0	1.4	--	205
CENTRAL HYDRO SUBAREA															
25/11W- 5B11 S 8-11-64	6.7	8.1	15	1.95	2.47	2.30	0.77	0	512	0	87	3.7	--	--	221
				26	33	31	10	77		22	2.45	0.06	1		4.94
25/11W- 6G 2 S 8-11-64	84	8.4	834	4.34	1.73	1.83	0.05	0	267	120	32	8.3	--	--	304
				55	22	23	1	55	4.38	2.50	0.90	0.13			4.44
25/11W- 8N 1 S 8-11-64	65	8.2	1040	1.13	2.3	74	4	0	209	270	68	4.5	--	--	377
				564	1.89	3.22	0.10	31	3.43	5.62	1.92	0.07	1		659
25/11W-18C 2 S 8-24-64	65	7.7	931	100	20	74	4	0	176	236	72	9.8	--	--	332
				4.99	1.64	3.22	0.10	32	4.88	4.91	2.03	0.16			602
25/11W-19L 1 S 8-11-64	64	7.9	931	104	23	62	4	0	202	209	78	10.7	--	--	354
				519	1.89	2.70	0.10	27	3.31	4.35	2.20	0.17	2		590
L A SAN GABRIEL RIVER HYDRO UNIT U0500															

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reactivity value				Mineral constituents in parts per million						
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfur	Total hardness	Extr. 10°C	Extr. 0°C
Date sampled				CO ₃	K	Na	CO ₃	CO ₃	SO ₄	Cl	NO ₃	F	B	S _o	S _o	CaCO ₃		
COASTAL PL OF LA CO HYDRO SUBUNIT U05A5																		
2S/11W-19M 1 S 8-11-64	64	7.9	861	97	4.84	1.81	2.35	0.08	0	188	199	70	5.0	--	--	--	54.2	333
2S/11W-19M 4 S 8-17-64	--	7.8	980	99	4.94	1.64	3.78	0.08	0	177	244	1.97	0.08	1	--	--	--	329
2S/12W-1R 2 S 11- 6-63	66	8.1	1010	96	1.7	1.02	4	0	2.90	5.08	81	9.7	0.16	2.28	2	63.1	63.1	310
12- 4-63	70	8.2	995	97	1.8	100	3	0	1.76	257	92	0.0	--	--	--	--	--	65.5
1- 3-64	66	7.8	996	92	1.9	95	3	0	2.88	5.35	2.59	2.48	0.0	--	--	--	--	316
2- 6-64	--	7.4	1000	93	1.7	100	3	0	1.73	248	88	2.48	0.0	--	--	--	--	63.9
3- 3-64	63	8.0	992	82	2.4	84	3	0	2.84	5.16	2.48	2.48	0.0	--	--	--	--	308
4-13-64	68	7.8	970	93	1.8	97	4	0	1.91	226	90	1.7	0.03	0.25	20	63.6	306	64.5

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per percent reactivity								Mineral constituents in parts per million						
				Calcium	Magnesium	Sodium	Potassium	Boron	Boronate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	TDS	Total hardness Evap 18°C	
Date sampled				mg	mg	Na	K	mg	HCO ₃	SO ₄	Cl	F	B				Evap 10°C	CO ₂ Computed
COASTAL PL OF LA CO HYDRO SUBUNIT U0500																		
25/12W-1R 2 S 5- 5-64	70	7.7	971	--	--	--	--	--	--	191	--	88	--	--	--	--	--	
6- 5-64	68	8.3	980	92	18	98	4	0	220	80	0•0	--	--	--	--	--	304	
7- 1-64	--	7.9	960	4•59	1•48	4•26	0•10	3•61	4•58	2•26	22	--	--	--	--	--	620	
7- 7-64	68	8.3	952	960	87	24	96	4	0	207	94	0•0	0•6	0•18	--	--	622	
8-18-64	68	8.2	980	4•54	1•48	4•26	0•10	3•39	4•35	2•65	26	--	--	--	--	--	616	
8-31-64	66	8.3	980	4•04	1•73	21	103	4	0	192	223	88	4•0	--	--	--	301	
25/12W-1R 6 S 8-11-64	68	8.2	1010	4•44	1•56	4•43	0•10	4•2	4•64	2•48	0•06	1	24	--	--	--	620	
9-30-64	67	8.1	975	4•24	1•40	17	--	1	30	4•5	1	--	--	--	--	--	286	
																	619	
																	289	
																	300	
																	631	
																	282	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction				Mineral constituents in parts per million							
				Calcium C _o	Magnesium M _g	Sodium N _a	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	T.D.S. Evap 180°C S-102
COASTAL PL OF LA CO HYDRO SUBUNIT U05AS															
2S/12W-7C 2 S 8-12-64	79	7.9	616	51 2.54	1.32 3.9	16 0.05	59 2.57	0 1	0 0.08	228 3.74	52 1.47	8.2 0.13	--	--	193
2S/12W-9M 1 S 5-12-64	70	8.2	912	106 5.29	2.22 5.5	27 2.00	46 0.05	2 0	270 4.43	85 1.77	112 3.16	9.8 0.16	--	--	352
2S/12W-9M 2 S 8-12-64	73	7.7	887	56 2.79	22 1.81	94 0.09	3 0.08	0 0.08	264 4.33	38 0.79	128 3.61	0.0 0.0	--	--	376
2S/12W-10U 1 S 10-21-63	69	7.8	604	70 3.49	13 1.07	40 1.74	3 0.08	0 0.08	234 3.84	41 0.85	55 1.55	0.5 0.01	0.12	28	521
2-18-64	--	7.8	539	53 2.64	8 0.66	58 2.52	3 0.08	0 0.08	260 4.26	28 0.58	40 1.13	2.6 0.04	0.22	27	230
4-20-64	--	8.3	535	26 1.30	26 2.14	51 2.22	3 0.08	3 0.10	233 3.82	28 0.58	43 1.21	0.0 0.1	0.10	--	471
9-22-64	--	7.4	520	56 2.79	6 0.49	53 2.30	3 0.08	0 0.08	234 3.84	28 0.58	42 1.18	0.0 0.4	0.30	--	348
2S/12W-10K 3 S 4-20-64	--	8.4	540	59 2.94	6 0.49	56 2.43	3 0.08	6 0.20	230 3.77	26 0.54	48 1.35	0.0 0.1	0.25	--	330
															164
															304
															172
															295
															330
															304
															336
															172
															317

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reactivity				Mineral constituents in parts per million			
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica
Date sampled				Mg	K	No	CO ₃	HCO ₃	SO ₄	Cl	F	B	SiO ₂	Expt 105°C Concuted	
COASTAL PL OF LA CO HYDRO SUBUNIT U0500 CENTRAL HYDRO SUBAREA U05A5															
2S/12W-10K 3 S 8-12-64	7.3	--	546	5.2 2.59 4.5	0.90 0.17 1.6	5.0 3.8 1	0.008 0.008 1	0 4.06 6.9	248 0.56 10	4.4 1.24 21	0.0 --	--	--	--	175
2S/12W-12A 3 S 8-11-64	6.8	8.02	527	1.4 0.70 1.5	0.58 3.35 7.0	7 0.13 1.3	5 0.13 1.3	0 1.05 22	64 1.62 33	7.8 2.14 44	3.2 0.05 1	--	--	--	309
2S/12W-12E 6 S 10-21-63	6.8	7.06	841	1.00 4.99 5.6	1.8 1.48 1.7	5.4 2.35 2.6	4 0.10 1	0 227 3.72	14.2 2.96 42	75 2.0 24	0.5 0.03 2.12	0.14 24	--	--	64
--	7.06		860	5.0 2.50 2.7	4.7 3.87 4.2	6.3 2.74 3.0	4 0.10 1	0 225 3.69	15.4 3.21 35	84 2.37 26	1.0 0.02 2.6	0.13 0.13 0.12	--	--	292
9-22-64			761	8.4 4.19 5.2	1.7 1.40 1.7	5.5 2.39 3.0	4 0.10 1	0 232 4.6	13.3 2.77 34	55 1.55 19	0.4 0.08 1	0.2 0.02 0.2	0.13 --	--	580
2S/12W-12M 2 S 2-18-64	--	7.06	800	3.6 1.80 2.1	4.5 3.70 4.4	6.6 0.10 1	4 0.10 1	0 227 3.72	14.2 1.80 44	64 1.0 35	0.2 0.02 21	0.20 0.02 --	--	--	324
4-20-64			786	8.2 4.09 4.49	1.3 1.07 1.3	7.1 4 3.7	4 0.10 1	0 222 3.64 44	14.0 2.91 3.5	60 1.69 20	6.8 0.11 1	--	--	--	531
8-12-64	6.8	8.01	800	6.3 3.14 3.4	2.2 1.81 2.0	9.3 4.04 4.4	5 0.13 1	0 118 1.93 21	23.6 4.91 78	4.4 0.20 24	0.22 0.07 1	16	582	248	
2S/12W-13D 7 S 11-19-63	6.4	7.09													576

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reacidence value						Mineral constituents in parts per million					
				Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfur dioxide	Total hardness
Date sampled				Mg	No	K	CO ₂	HCO ₃	SO ₄	Cl	NO ₃	F	B	CaCO ₃ Compounded	
COASTAL PL OF LA CO HYDRO SUBUNIT U05A0															
25/12W-13D 7 S 4-13-64	66	7.1	920	87	26	4	0	184	230	80	6.2	0.14	17	656	324
	--	8.1	940	4.34	2.14	3.48	0.10	3.02	4.79	2.26	0.10	--	--	621	
	--		4-20-64	4.59	2.22	3.35	0.10	3.21	4.64	2.28	0.08	0.10	--	630	341
	67	8.1	977	102	20	74	0	196	223	81	5.0	0.2	--	--	
			5-09	1.64	3.22	0.10	0	195	221	81	8.9	--	--		
	--		8-11-64	51	16	32	1	3.20	4.60	2.28	0.14	--	--		
	--		9-72-64	2.99	3.78	3.57	0.10	3.20	4.54	2.45	0.0	0.2	--		
	--		25/12W-14B 2 S 4-20-64	90	19	97	5	0	188	245	81	9.0	0.4	--	
	--		10-21-63	4.49	1.56	4.22	0.13	3.08	5.10	2.28	0.15	--	--		
	--		2-18-64	999	91	23	90	0	203	205	86	17.0	0.6	18	642
	--		4-20-64	4.54	1.89	3.91	0.15	3.33	4.27	2.43	0.27	--	--		303
	--		976	94	21	91	6	0	199	226	81	25.0	0.6	18	639
	--		675	65	18	55	4	0	160	131	66	0.0	0.2	--	670
	--		3-24-64	1.48	2.39	0.10	0	2.62	2.73	1.86	0.15	--	--		637
	--			21	33	1	0	36	38	26					322
	--														661
	--														624
	--														436
	--														236
	--														418

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reacione value						Mineral constituents in parts per million							
				Calcium C o	Magnesium M g	Sodium N a	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron	Sulfur S O ₂	Total dissolved solids TDS °C	
COASTAL PL. OF LA CO HYDRO SUBUNIT U05A5																	
2S/12W-14B 8 S 8-11-64	65	8.1	992	9.0 4.49 4.4	1.73 1.7	2.1 3.91 3.8	0.13 1	5 2.90 2.8	0 4.85 4.7	233 2.40 2.3	85 0.17 2	10.7 0.17 2	--	--	--	311	
2S/12W-19C 1 S 8-12-64	81	8.1	792	5.7 2.84 3.5	1.48 1.48 1.8	1.8 3.74 4.6	0.08 0.08 1	0 3.29 4.0	0 2.96 3.6	142 1.89 2.3	67 1.8 23	--	--	--	216		
8-1-64	77	8.4	610	6.0 2.99 4.7	1.07 1.07 1.7	1.3 5.0 34	4 0.10 2	0 233 58	0 80 25	4.0 4.0 1.7	0.0 0.0 1.13	--	--	--	4.74		
2S/12W-21B 5 S 10- 8-63	62	7.8	791	9.6 4.79 5.6	1.81 1.81 2.1	2.2 4.3 21	4 0.10 1	0 3.75 4.4	0 229 36	145 1.55 18	55 0.13 2	8.3 0.13 1.13	--	--	203		
-- 7.9	774	9.8 4.89 5.8	1.7 1.40 1.7	4.8 2.09 2.25	3 0.08 1	0 0.08 25	0 0.08 1	0 3.02 4.1	215 3.02 3.7	62 1.75 20	12.0 0.19 2	0.3 0.18 0.18	23 23 23	560 560 560			
1-31-64	--	800	7.1 3.54 4.1	34 2.80 32	53 0.08 26	3 0.08 1	0 0.08 1	0 3.21 37	196 3.21 41	169 1.86 22	66 0.02 22	1.0 0.02 0.02	0.2 0.17 0.17	--	4.87		
7-28-64	--	770	6.6 3.29 3.9	36 2.96 35	50 2.17 26	3 0.08 1	0 0.08 1	0 3.11 37	190 3.11 42	169 1.69 20	60 0.03 20	2.0 0.4 0.02	0.23 0.23 0.23	--	524		
9-22-64	--	749	8.7 4.34 5.5	1.56 1.56 20	1.9 1.96 25	3 0.08 1	0 0.08 1	0 3.18 4.2	194 3.18 36	133 2.77 36	58 1.64 21	2.0 0.04 1	--	--	4.94		
2S/12W-21J 1 S 8-11-64	64	8.1														534	
																480	
																295	
																44.3	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value					Mineral constituents in parts per million					
				Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfate
Date sampled				M g	N a	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	B	S O ₂	
COASTAL PL OF LA CO HYDRO SUBUNIT U05A5														
2S/12W-22J 1 5	--	8•2	986	92	1•56	0•10	105	4	0	177	236	82	12•0	--
8-17-64				4•59	42	42	4•57	2•90	2•31	0•19	4•91	22	2	--
2S/12W-23B 4 5	--	8•0	874	98	1•56	0•08	64	3	0	188	186	74	10•0	--
8-17-64				4•89	53	17	2•78	3•08	3•08	3•87	3•87	20•9	0•16	--
2S/12W-23P 4 5	--	8•3	935	93	1•8	0•10	83	4	0	184	212	79	14•1	--
8-17-64				4•64	48	3•61	0•10	3•02	4•41	2•23	0•23	0•23	2	--
2S/12W-24E 6 5	64	7•5	953	124	29	5	45	0	261	199	59	19•0	0•5	594
10- 8-63				6•19	2•38	1•96	0•13	4•28	4•14	1•66	0•31	0•31	2	306
				58	22	18	1	41	40	16	3	3	25	720
2-18-64	--	7•6	924	121	24	49	5	0	222	214	68	26•0	0•4	634
				6•04	1•97	2•13	0•13	3•64	4•46	1•92	0•42	0•42	4	401
				59	19	21	1	35	43	18	4	4	2	639
7-22-64	--	8•0	930	74	49	54	4	0	220	214	72	10•0	0•2	630
				3•69	4•03	2•35	0•10	3•61	4•46	2•03	0•16	0•16	2	386
9-22-64	--	7•7	860	96	30	48	4	0	186	213	70	10•0	0•4	585
				4•79	2•47	2•09	0•10	3•05	4•43	1•97	0•16	0•15	2	363
2S/12W-25E 10 5	60	7•5	934	111	27	50	5	0	178	237	72	3•8	0•6	563
10- 8-63				5•54	2•22	2•17	0•13	2•92	4•93	2•03	0•06	0•10	22	616
				55	22	22	1	29	50	20	1	1	22	695
														388

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity						Mineral constituents in parts per million						
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Sulfate	Barium	Silico-feldspar	
Date sampled				Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	F	B	SiO ₂	TDS Evap 80°C	Total hardness as CaCO ₃
COASTAL PL OF LA CO HYDRO SUBUNIT U05A0																
CENTRAL HYDRO SUBAREA U05A5																
2S/12W-25E 10 S 2-18-64	--	7.5	907	110 5.49 55	23 1.89 19	56 0.13 24	0 0.13 1	0 2.88 29	176 4.87 50	234 1.92 20	8.8 0.14 1	0.10	21	599	369	
4-20-64	--	8.1	860	94 4.69 47	33 2.71 27	57 2.48 25	4 0.10 1	0 2.70 25	165 5.54 52	266 2.31 22	82 3.0 22	0.12	--	613	636	
7-28-64	--	7.6	930	71 3.54 35	47 3.87 38	60 2.61 26	4 0.10 1	0 2.70 27	159 2.61 25	227 4.73 25	103 2.90 28	0.12	--	620	370	
9-22-64	--	7.7	880	81 4.04 41	39 3.21 33	56 2.43 25	4 0.10 1	0 2.70 27	165 4.89 49	235 2.89 23	81 2.88 23	0.10	--	660	371	
2S/12W-25E 1 S 8-17-64	--	7.8	935	108 5.39 54	22 1.81 18	60 0.10 1	4 0.10 1	0 2.70 27	165 5.12 51	246 2.12 22	78 2.20 21	4.5 0.07 1	--	593	622	
2S/12W-25E 6 S 8-11-64	66	7.8	898	102 5.09	23 1.89	55 0.10	4 0.10	0 2.88	176 4.60	221 4.60	74 2.09	0.15	--	579	363	
2S/12W-25G 1 S 8-11-64	64	8.0	967	94 4.69 46	23 1.89 19	81 3.52 35	4 0.10 1	0 2.88	156 5.56 52	250 5.21 52	80 2.26 22	0.12	--	604	360	
2S/12W-25M 1 S 8-11-64	63	7.7	859	106 5.29 58	24 1.97 22	40 0.10 19	4 0.10 1	0 2.81 31	172 4.87 48	210 1.92 21	68 0.09 1	0.12	--	573	349	
															329	
															614	
															363	
															542	
															542	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per percent reacionce value				Mineral constituents in parts per million				Mineral constituents in parts per million					
				Calcium C o	Magnesium M g	Sodium N a	Potassium K	Bicarbonate H C O ₃	Carbonate C O ₃	Sulfate H C O ₃	Chloride C l	Nitrate N O ₃	Fluoride F	Boron B	T.D.S. Evap 18°C	Total Evap 105°C	Hardness C o
COASTAL PL OF LA CO HYDRO SUBUNIT U05A5																	
2S/12W-25P 7 S 11-19-63	--	7.6	820	7.7 3.84 39	2.71 3.09 32	4 0.10 1	0	184 3.02 31	225 4.68 48	69 1.95 20	4.9 0.2 1	0.08 0.14	18	618	328		
4-13-64	66	7.5	830	101 5.04 50	21 1.73 17	4 0.10 31	0	203 3.33 33	226 4.71 47	69 1.95 1	7.0 0.2 1	0.14	19	634	339		
2S/12W-26E 10- 8-63	63	8.0	956	114 5.69 55	25 2.06 20	5 0.13 23	0	200 3.28 32	228 4.75 47	72 2.03 20	9.4 0.5 0.15	0.5 0.11 1	22	700	388		
1-31-64	--	7.4	959	115 5.74 54	23 1.89 18	5 0.13 26	0	205 3.36 31	230 4.79 45	74 2.09 20	28.0 0.45 4	0.5 0.14 1	23	628	382		
7-28-64	--	8.0	950	69 3.44 33	49 4.03 39	6 0.15 27	0	195 3.20 31	227 4.73 46	78 2.20 21	11.0 0.18 2	0.2 0.18 2	--	628	374		
9-22-64	--	7.2	900	86 4.29 43	34 2.80 28	4 0.10 1	0	197 3.23 31	222 4.62 45	81 2.28 22	9.0 0.15 1	0.6 0.05 1	--	650	355		
2S/12W-27G 5 S 8-11-64	68	7.7	817	95 4.74 55	22 1.81 21	4 0.10 23	0	178 2.92 34	180 3.75 44	63 1.78 21	7.0 0.11 1	--	--	596	328		
2S/12W-28A 4 S 10- 8-63	62	7.7	649	779 3.94 55	15 1.23 17	3 0.08 1	0	227 3.72 52	105 2.19 30	45 1.27 18	1.0 0.02 1	0.6 0.13 1	20	435	259		
LA SAN GABRIEL RIVER HYDRO UNIT U0500																	
CENTRAL HYDRO SUBAREA U05A5																	
2S/12W-25P 7 S 11-19-63	--	7.6	820	7.7 3.84 39	2.71 3.09 32	4 0.10 1	0	184 3.02 31	225 4.68 48	69 1.95 20	4.9 0.2 1	0.08 0.14	18	618	328		
4-13-64	66	7.5	830	101 5.04 50	21 1.73 17	4 0.10 31	0	203 3.33 33	226 4.71 47	69 1.95 1	7.0 0.2 1	0.14	19	634	339		
2S/12W-26E 10- 8-63	63	8.0	956	114 5.69 55	25 2.06 20	5 0.13 23	0	200 3.28 32	228 4.75 47	72 2.03 20	9.4 0.5 0.15	0.5 0.11 1	22	700	388		
1-31-64	--	7.4	959	115 5.74 54	23 1.89 18	5 0.13 26	0	205 3.36 31	230 4.79 45	74 2.09 20	28.0 0.45 4	0.5 0.14 1	23	628	382		
7-28-64	--	8.0	950	69 3.44 33	49 4.03 39	6 0.15 27	0	195 3.20 31	227 4.73 46	78 2.20 21	11.0 0.18 2	0.2 0.18 2	--	628	374		
9-22-64	--	7.2	900	86 4.29 43	34 2.80 28	4 0.10 1	0	197 3.23 31	222 4.62 45	81 2.28 22	9.0 0.15 1	0.6 0.05 1	--	650	355		
2S/12W-27G 5 S 8-11-64	68	7.7	817	95 4.74 55	22 1.81 21	4 0.10 23	0	178 2.92 34	180 3.75 44	63 1.78 21	7.0 0.11 1	--	--	596	328		
2S/12W-28A 4 S 10- 8-63	62	7.7	649	779 3.94 55	15 1.23 17	3 0.08 1	0	227 3.72 52	105 2.19 30	45 1.27 18	1.0 0.02 1	0.6 0.13 1	20	435	259		

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity value						Mineral constituents in parts per million							
				Calcium C.O.	Magnesium M.Q.	Sodium N.O.	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Sulfur dioxide S _O ₂	Total Evap B/C Co	
COASTAL PL. OF LA CO HYDRO SUBUNIT 05A05																	
25/12W-28A 4 S 2-18-64	--	7.8	658	8.0 3.9 5.6	1.15 1.16 1.17	4.4 1.91 0.08	0 0.27 1	0 2.27 50	224 3.67 50	109 2.27 31	4.5 1.27 17	3.8 0.06 1	0.12 0.1	18 0.17	405 4.16	257 4.27	
4-20-64	--	8.0	620	7.3 3.64 5.0	1.48 2.09 2.0	4.8 0.08 1	0 2.39 4.7	207 3.39 33	113 1.41 20	50 1.41 33	0.0 0.0	0.1 0.1	0.17 0.15	--	--	416 407	
7-28-64	--	7.9	680	6.8 3.39 4.45	2.4 1.97 2.6	4.7 2.04 2.7	3 0.08 1	207 3.39 4.6	120 2.50 34	51 1.44 20	0.0 0.0	0.2 0.15	--	--	444 4.44		
9-22-64	--	7.4	650	7.7 3.84 5.4	1.6 1.32 1.8	4.4 1.91 2.7	3 0.08 1	212 3.47 4.8	112 1.49 32	53 1.49 20	0.0 0.0	0.4 0.17	--	--	415 4.32		
25/12W-28Q 1 S 8-11-64	6.4	8.2	923	10.7 5.34 5.54	2.3 1.89 1.19	5.7 0.48 0.10	4 0.10 25	0 3.08 31	188 4.52 46	217 2.09 21	74 0.12 1	7.2 0.12	--	--	--	362 582	
25/12W-29A 4 S 8-11-64	7.5	8.1	742	8.6 4.29 5.4	2.3 1.89 2.4	4.0 1.74 0.05	2 0.05 1	221 3.62 4.6	120 2.50 32	54 1.52 19	10.0 0.16 2	--	--	--	--	309	
25/12W-30H 2 S 11-21-63	--	7.8	580	5.7 2.84 4.1	2.3 1.89 2.7	4.8 0.08 30	3 0.08 1	226 3.70 52	99 2.06 29	4.3 1.21 17	6.3 0.10 1	0.2 0.13	21	4.30	237		
4-13-64	7.2	7.5	615	6.9 3.44 4.8	1.8 1.48 2.17	5.0 0.08 1	3 0.08 30	227 3.72 51	103 2.14 30	4.6 1.30 18	4.8 0.08 1	0.2 0.08	23	4.38	246		
																4.29	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reductance value				Mineral constituents in parts per million parts per million								
				Calcium	Magnesium	Sodium	Potassium	Chloride	Sulfate	Nitrate	Boron	Silica	TDS	Total hardness	Evap. loss	Evap. loss
Date sampled																
COASTAL PL OF LA CO HYDRO SUBUNIT U05A5																
2S/12W-31M 2 S	68	8.0	639	6.6	3.29	1.56	1.91	2	0	262	5.5	4.0	11.1	--	--	243
8-12-64				4.8	23	28	1	0.05	4.29	1.15	1.13	0.18	3			
2S/12W-34P 1 S	64	7.9	530	5.1	2.7	2.26	0.10	0	140	126	39	10.0	0.2	0.15	18	408
11-19-63				2.54	2.22	1.26	2.10	2	2.29	2.62	1.10	0.16	3			238
4-13-64	70	7.7	740	9.0	2.2	3.0	4	0	230	132	43	8.9	0.4	0.08	19	472
				4.9	1.81	1.30	0.10	1	3.77	2.75	1.21	0.14	2			315
2S/12W-34R 1 S	72	7.6	681	8.6	1.9	3.0	3	0	203	125	40	6.6	--	--	--	462
8-11-64				4.29	1.56	1.30	0.08	0	3.33	2.60	1.13	0.11	2			293
2S/12W-35D 2 S	62	8.1	799	10.8	2.3	3.4	0	224	166	49	8.5	0.5	0.07	24		364
10- 8-63				5.39	1.89	1.48	0.10	0	3.67	3.46	1.38	0.14	2			527
1-31-64	--	7.4	770	10.1	2.3	3.6	4	0	205	175	52	14.0	0.5	0.08	21	504
				5.04	1.89	1.57	0.10	1	3.36	3.64	1.47	0.23	3			347
4-20-64	--	7.9	780	9.8	2.0	3.9	4	0	167	180	59	5.0	0.2	0.10	--	527
				4.89	1.64	1.70	0.10	2	2.74	3.07	1.66	0.08	1			454
8-17-64	--	7.7	840	10.8	2.2	4.2	3	0	190	193	61	7.5	--	--	--	327
				5.39	1.81	1.83	0.08	2	3.11	4.02	1.72	0.12	1			487
				5.9	2.0	2.0	1		3.5	4.5	1.19					360

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity						Mineral constituents in parts per million							
				Calcium C _a	Magnesium M _{Mg}	Sodium N _{Na}	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron	Silica SiO ₂	Total dissolved solids TDS	
COASTAL PL OF LA CO HYDRO SUBUNIT U0500 CENTRAL HYDRO SUBAREA U0545																	
2S/13W-2M 1 S	66	7.8	979	101 5.04 48	25 2.06 20	77 3.35 32	2 0.05	--	295 4.84 46	144 3.00 29	95 2.68 25	0.0	--	--	--	355	
4- 3-64																	
2S/13W-10A 4 S	66	7.7	1050	117 5.84 53	30 2.47 22	63 2.74 25	2 0.05	0	308 5.05 45	126 2.62 23	124 3.50 31	0.0	--	--	--	416	
4-10-64																	
2S/13W-10R 6 S	68	8.0	565	61 3.04	14 1.15	44 1.91	2 0.05	--	220 3.61	79 1.64	28 0.79	0.0	--	--	--	613	
4- 3-64																	
2S/13W-11G 6 S	66	7.8	586	59 2.94 46	16 1.32 21	47 2.04	2 0.05	--	226 3.70	82 1.71	31 0.87	0.0	--	--	--	210	
4- 3-64																	
2S/13W-11N 5 S	64	7.9	675	73 3.64 50	19 1.56 21	48 2.09	2 0.05	--	274 4.08 49	123 2.56 57	30 0.85 32	1.0	--	--	--	336	
4- 3-64																	
2S/13W-11P 2 S	66	8.1	773	84 4.19	21 1.73	58 2.52	2 0.05	--	249 4.08	113 2.35	67 1.89	0.0	--	--	--	348	
4- 3-64																	
2S/13W-12A 1 S	77	7.9	678	59 2.04 43	19 1.56 23	54 2.35	2 0.05	0	238 3.90	48 1.00	64 1.80	14.8	--	--	--	467	
8-12-64																	225
2S/13W-12C 1 S	73	7.5	576	58 2.89	18 1.48 23	44 1.91	3 0.08	0	246 4.03	81 1.69	29 0.82	0.6	0.17	30	390	378	
7- 6-64																	219
																	385

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per millilitre reactivity						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Sulfur dioxide	
Date sampled				K	Mg	Na	Ca	HCO ₃	CO ₃	SO ₄	Cl	NO ₃	F	B		Total hardness as Evap BO/C Computed CaCO ₃	
COASTAL PL OF LA CO HYDRO SURUNI TUOSACO HYDRO SUBAREA U0545																	
2S/13W-12K 1 S 2-18-64	67	8.2	290	1.2 0.60	2 1.9	0.16 5	2.26 73	3 3	0 0.93	57 31	2 0.04	71 2.00	0.0 0.0	0.09 1.67	1	190 171	38 187
2S/13W-13A 1 S 4- 3-64	70	8.0	553	5.2 2.59	14 1.15	4.9 2.13	1 0.03	-- 36	221 3.62	58 1.21	37 1.04	0.0 1.18	-- --	-- --	-- --	320	320
2S/13W-13E 2 S 4- 3-64	66	8.1	539	5.2 2.59	11 0.90	5.3 2.30	2 0.05	-- 39	213 3.49	72 1.50	28 0.79	0.0 0.79	-- --	-- --	-- --	175	175
2S/13W-15N 3 S 7- 2-64	65	8.1	630	5.2 2.59	28 2.30	4.4 1.91	4 0.10	0 28	244 4.00	101 2.10	33 0.93	0.0 0.93	0.2 0.13	0.15 0.15	0 0.15	323 323	323
2S/13W-25H 3 S 7- 6-64	75	7.5	550	5.4 2.69	13 1.07	4.7 2.04	3 0.08	0 30	226 3.70	63 1.31	30 0.85	0.2 0.15	0.5 0.13	0.13 0.13	22 22	347 347	188
2S/13W-28H 1 S 10-11-63	--	7.7	600	6.9 3.44	16 1.32	4.5 1.06	4 0.10	0 29	221 1.0	93 3.62	36 1.02	0.2 0.12	0.2 0.15	0.05 0.05	19 19	436 436	238
7- 2-64	--	8.1	770	6.9 3.44	27 4.3	5.1 2.22	3 0.08	0 28	247 4.05	109 2.27	48 1.35	0.0 0.10	0.2 0.17	0.16 0.16	-- --	466 466	283
2S/13W-34D 4 S 11- 7-63	--	7.5	1130	12.8 6.39	4.5 3.70	6.6 2.87	4 0.10	0 22	339 5.56	235 4.89	99 2.79	0.0 0.06	0.28 0.21	0.28 0.21	22 22	832 770	505

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Specific conductance (mho's at 25°C)	Mineral constituents in parts per million equivalents per million percent reacionce value						Mineral constituents in parts per million							
				C a	M g	N a	K	C O ₃	H C O ₃	S O ₄	C l	B	S O ₂				
Date sampled																	
COASTAL PL OF LA CO HYDRO SUBUNIT U050A0																	
2S/14W-14C 2 S 11-20-63	--	7.9	610	50 2.50	33 2.04	4 0.10	0	250 4.10	102 2.12	36 1.02	9.7 0.16	0.22	21	432	261		
4-14-64	81	7.8	650	72 3.59	21 1.73	48 0.10	0	252 4.13	97 2.02	39 1.10	10.0 0.16	0.2	17	428	426	266	
2S/14W-22P 2 S 11-20-63	71	8.0	580	46 2.30	27 2.22	54 0.10	0	247 4.05	85 1.77	36 1.02	0.0 0.0	0.2	21	426	432	226	
4-12-64	73	7.3	590	67 3.34	13 1.07	54 0.10	0	250 4.10	77 1.60	39 1.10	0.0 0.0	0.2	23	402	395	221	
2S/14W-23H 3 S 11-20-63	--	7.7	660	61 3.04	34 2.80	49 2.13	4	0 0.10	263 4.31	99 2.06	47 1.33	0.2 0.26	0.15	20	472	292	
4-14-64	65	7.5	750	75 3.74	27 2.22	52 0.10	4	0 0.39	268 4.39	109 2.27	52 1.47	8.2 0.13	0.2	18	460	484	298
2S/14W-23H12 S 11-20-63	64	8.0	600	52 2.59	29 2.38	46 0.10	4	0 0.08	249 1.94	93 0.96	34 0.18	0.1 0.13	0.17	20	408	477	249
4-14-64	65	7.7	650	70 3.49	21 1.73	48 2.09	4	0 0.20	256 1.96	94 1.10	39 0.18	11.0 1.10	0.2	19	420	412	261

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents				Parts per million equivalent resistance value				Mineral constituents in parts per million			
				Colloidal	Magnesium	Sodium	Potassium	Boron	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silicate	TDS Evap 18°C
Date sampled				CO ₃	Mg	No	K	HCO ₃	SO ₄	NO ₃	F	B			CaCO ₃ Computed
COASTAL PL OF LA CO HYDRO SUBUNIT U0555															
35/11W-2K 1 S 7-1-64	85	7.2	3450	1.96	9.78	10.36	20.00	0.23	0	351	1281	266	0.04	1.00	--
35/11W-20J 5 S 7-21-64	74	7.9	4777	5.0	2.50	0.66	1.74	0.05	0	197	29	35	0.04	0.06	21
35/11W-21N 5 S 7-21-64	--	7.4	1857	1.25	51	1.13	3.5	0.1	3.23	0.60	0.99	0.03	0.01	0.06	2512
35/11W-27E 3 S 7-21-64	--	7.5	1166	1.18	3.9	9.2	3	0	491	387	197	4.0	0.06	30	300 158
35/11W-27G 1 S 11-21-63	76	8.3	400	0.8	0.08	3.96	0.03	0.07	2.80	316	78	3.0	0.07	0.12	24
4-14-64	84	7.9	430	0.9	1	9.0	2	0	4.46	6.58	2.20	0.20	0.05	0.12	24
35/11W-28P 5 S 11-21-63	--	8.0	510	4.4	1.5	51	2.22	0.05	0	173	53	18	0.0	0.04	11
4-14-64	68	7.8	550	0.45	0.08	3.91	0.05	0	2.84	1.10	0.51	0.0	0.06	0.21	10 272 24
				10	2	87	1	2	64	24	10				2644
				9	89	1	2	64	24	10					270 272 27
				39	22	39	1	3.70	64	21	15				3244 172 3333
				44	18	37	1	3.70	65	17	17				318 181 327

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity value				Mineral constituents in parts per million						
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fusco-Boron	Silico-SiO ₂
Date sampled				mg	mg	mg	mg	mg	mg	mg	mg	mg	mg	mg
COASTAL PL OF LA CO HYDRO SUBUNIT U05A0														
35/11W-29H 2 S 7-16-64	--	7.9	4.80	4.3	2.05	1.23	1.52	0.05	0	232	21	27	0.0	0.14
35/11W-29J 1 S 7-21-64	--	7.3	4.99	5.6	1.2	3.6	2	0	3.80	0.44	9	15	0.76	--
35/11W-29R 4 S 7-23-64	72	7.7	357	32	9	37	2	0	248	12	35	0.8	0.4	0.05
35/11W-30H 3 S 7-21-64	--	7.8	643	86	16	31	3	0	192	24	10	0.0	0.05	0.06
35/11W-30K 2 S 12-17-63	66	7.5	355	4.4	6	26	2	0	301	58	37	1.0	0.05	0.03
35/12W- 3M 1 S 8-11-64	79	7.9	814	77	23	64	4	0	182	185	63	6.6	0.34	--
35/12W- 5M 1 S 10- 2-63	64	7.6	655	3.84	1.89	2.78	0.10	2.98	3.85	1.78	0.11	--	--	213
8-11-64	66	8.0	684	89	17	32	1	34	44	20	1	--	--	512
				4.44	1.40	1.39	0.08	0	257	94	39	8.0	--	287
				61	19	19	1	57	4.21	1.96	1.10	0.13	--	292
				61	19	19	1	57	26	15	2	--	--	408
				60	21	17	1	57	28	13	3	--	--	303
				60	21	17	1	57	28	13	3	--	--	411

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents				parts per million equivalents per percent reactivity				Mineral constituents in parts per million						
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	TDS	Total hardness as Evap. BOE	
Date sampled				Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂			Evap. USC	Computed	CaCO ₃
COASTAL PL OF LA CO HYDRO SUBUNIT U05A0																		
3S/12W-8F 1 S 11-22-63	--	7.0	5.20	4.7	1.56	2.35	1.74	0.05	0	244	4.6	21	7.2	0.08	19	306	196	
4-14-64	7.0	7.0	4.75	5.7	10	4.2	2	0	245	4.5	21	7.8	0.02	0.14	20	321	321	
3S/12W-17L 3 S 7-16-64	6.9	7.0	4.76	6.4	10	24	3	0	249	25	22	1.0	0.05	0.07	25	342	183	
3S/12W-18G 2 S 7-16-64	5.8	7.0	6.21	7.4	15	4.2	3	0	4.08	0.52	0.62	0.02	0.02	0.02	0.02	326	326	
3S/12W-25K 1 S 11-22-63	--	8.0	4.35	4.0	23	25	2	0	287	59	36	1.0	0.06	0.11	27	301	201	
4-14-64				2.00	1.89	1.09	0.05	0.05	4.70	1.23	1.02	0.02	0.02	0.02	0.02	297	297	
3S/12W-26L 2 S 7-21-64	--	7.0	4.50	5.3	16	25	0.05	0.05	0	268	14	9	0.0	0.02	0.08	19	400	246
3S/12W-26Q 3 S 7-16-64	--	7.0	6.50	2.64	1.32	1.32	1.09	0.05	0	268	12	11	0.0	0.01	0.07	18	399	195
				52	26	21	1	89	4.39	0.29	0.25	0.31	0.31	0.31	0.31	258	258	
				3.24	0.99	0.96	0.08	0.08	0	255	30	18	0.0	0.06	0.08	26	264	264
				61	19	18	2	79	4.18	0.62	0.51	12	10	10	10	302	302	
				3.34	2.38	1.26	0.05	0.05	0	274	57	41	0.0	0.02	0.12	--	358	286
				48	34	18	1	66	4.49	1.19	1.16	17	17	17	17	360	360	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reactivity				Mineral constituents in parts per million			
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silicate
Date sampled				Mg	Mg	No	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	S.O.2
COASTAL PL OF LA CO HYDRO SUBUNIT U05A0															
CENTRAL HYDRO SUBAREA U05A5															
3S/12W-30C 3 S 11-13-63	--	8.3	4.92	56	9	4.3	2	0	240	4.7	32	0.0	--	--	--
				2.79	0.74	1.87	0.05	0	3.93	0.98	0.90	17	15		177
				51	14	34	1		68						307
4- 8-64	--	8.3	4.83	53	10	4.0	2	0	233	3.8	18	0.0	--	--	--
				2.64	0.82	1.74	0.05		3.82	0.79	0.51	10	15		173
3S/12W-33A 1 S 11-21-63	--	8.0	3.90	47	10	2.3	3	0	210	2.0	9	0.0	0.4	0.13	276
				2.35	0.82	1.00	0.08		3.44	0.42	0.25	6	10		276
4-14-64	6.6	7.7	3.80	55	8	2.2	3	0	244	1.3	7	0.0	0.2	0.09	250
				2.74	0.66	0.96	0.08		4.00	0.27	0.20	4	6		159
3S/12W-35B 4 S 7- 6-64	6.5	7.7	5.29	74	12	2.4	3	0	269	4.2	21	0.6	0.5	0.07	237
				3.69	0.99	1.04	0.08		4.41	0.87	0.59	10	15		237
3S/12W-35B 5 S 7-16-64	--	7.6	6.00	51	33	2.7	2	0	292	4.4	27	0.0	0.2	0.16	--
				2.54	2.71	1.17	0.05		4.79	0.92	0.76	4	6		251
3S/13W-20 1 S 11- 7-63	--	7.5	7.90	86	28	53	4	0	272	13.9	62	0.0	0.6	0.25	263
				4.29	2.30	2.30	0.10		4.46	2.89	1.75	32	49		263
3S/13W-11E 1 S 8-12-64	6.8	8.2	5.30	50	14	4.3	2	0	226	4.8	29	4.7	0.08	0.08	183
				2.50	1.15	1.87	0.05		3.70	1.00	0.82	15	18		183
				45	21	34	1		66						302

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in equivalents per million				parts per million equivalents per million reactivity value				Mineral constituents in parts per million					
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silicate	TDS	Total hardness
Date sampled				Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	B	F	SiO ₂	Equiv. BOC	Equiv. TDS	CaCO ₃	Consumed
COASTAL PL OF LA CO HYDRO SUBUNIT U0500 CENTRAL HYDRO SUBAREA																	
35/13W-1-G11 S 10-2-63	66	7.07	512	58	13	40	2	0	245	4.9	26	2.0	--	--	--	198	
				2.89	1.07	1.74	0.05	4.02	6.9	1.02	0.73	0.03					
				50	19	30	1			18	13	1				310	
																226	
70	8.01	598	64	16	43	2	0	250	65	29	5.7	--	--	--	--		
				3.19	1.32	1.87	0.05	4.10	3.35	0.82	0.09						
				50	21	29	1		64	21	13	1				348	
																314	
8-12-64																163	
35/13W-20H 3 S 11-20-63	72	8.01	470	34	19	46	4	0	232	4.6	22	0.0	0.2	0.15	19	304	
				1.70	1.56	2.00	0.10	3.80	0.96	0.62							
				32	29	37	2		71	18	12						
																304	
--	7.08	480	39	16	47	3	0	233	4.6	22	0.0	0.2	0.14	21	300	164	
				1.95	1.32	2.04	0.08	3.82	0.96	0.62						309	
				36	24	38	1		71	18	11					274	
4-21-64																446	
35/13W-25G 2 S 8-12-64	--	8.00	745	80	18	53	3	0	253	11.8	4.6	4.0	--	--	--	352	
				3.99	1.48	2.30	0.08	4.15	2.46	1.30	0.06					355	
				51	19	29	1		52	31	16	1					
																355	
35/13W-34H 2 S 11-21-63	--	7.06	500	55	14	47	2	0	197	84	41	0.0	0.2	0.15	15	352	
				2.74	1.15	2.04	0.05	3.23	1.75	1.16						355	
				46	19	34	1		53	29	19						
																355	
4-14-64	73	7.06	540	48	19	50	2	0	207	6.7	52	0.0	0.2	0.14	19	362	198
				2.40	1.56	2.17	0.05	3.39	1.39	1.47						359	
				39	25	35	1		54	22	24					392	
																632	
35/13W-35K 4 S 11-13-63	--	8.02	976	124	20	78	--	0	306	156	104	0.0	--	--	--	392	
				6.19	1.64	3.39			5.02	3.25	2.93						
				55	15	30			45	29							

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reaction value				Mineral constituents in parts per million			
				Calcium C. o	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silicate SiO ₂
COASTAL PL OF LA CO HYDRO SUBUNIT U0500 CENTRAL HYDRO SUBAREA															
3S/13W-35K 4 S 4- 7-64	--	8.1	854	1.17 5.84	1.48 5.55	3.26 1.4	0.08 1.1	75 31	0 4.87	297 3.21	154 23	0.0	--	--	366
4S/11W-5E 2 S 7-21-64	69	7.9	412	4.2	9	38	2	0	219	2.40	85	0.0	--	--	598
4S/11W-5M 2 S 4- 7-64	64	8.0	410	2.10 4.6	0.74 16	1.65 36	0.05 1	0	3.59 78	0.60 13	2.0 8	0.05 1	0.07	24	142
4S/11W-5N 1 S 4- 7-64	57	8.0	345	3.4 1.70	6 0.49	35 1.52	3 0.08	0	238 3.90	0.62 0.20	30 7	0.0 0.2	0.14	18	267
4S/11W-6N 3 S 4-21-64	--	7.2	417	52 2.59	4 0.33	12 0.52	--	0	205 3.36	4 0.08	14 2	0.0 0.02	0.14	4	150
4S/12W-1G 1 S 7-16-64	--	8.0	490	5.4 2.69	1.7 1.40	25 1.09	2 0.05	0	261 4.28	21 0.42	15 8	0.0 0.1	0.14	--	274
4S/12W-2A 5 S 7- 6-64	--	7.8	475	6.4 3.19	1.2 0.99	23 1.00	0.2 0.05	0	264 4.33	25 0.52	1.0 8	0.5 0.02	0.06	25	209
4S/12W-5H 1 S 9- 2-64	--	8.1	417	5.2 2.59	8 0.66	31 1.35	3 0.08	0	216 3.54	4 0.08	40 1.13	0.0 --	--	20	298
															203
															163

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (in micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reactivity value				Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Total Evap 80°C
Date sampled				Ca	Mg	K	Na	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	Computed CaCO ₃
COASTAL PL. OF LA CO HYDRO SURUNITUOSA CENTRAL HYDRO SUBAREA U05A5																
45-112W-6D 1 S 10- 1-63	--	8.2	465	44	0.49	1.91	0.08	3	0	200	0.75	30	--	--	22	266
				2.020				3.28								
10-29-63	--	8.2	423	34	5	36	0.08	--	173	32	25	--	--	20	267	106
				1.070	0.41	1.57			2.84	0.67	0.71					
12- 3-63	--	8.1	425	38	4	35	0.05	0	170	4	23	--	--	21	257	112
				1.090	0.33	1.52			2.79	0.08	0.65					
12-31-63	--	8.0	430	40	5	47	2.04	0.05	0	176	29	26	--	--	23	294
				2.000	0.41	2.04			2.88	0.60	0.73					
1-28-64	--	8.1	430	40	4	49	3	0	174	32	22	--	--	20	257	117
				2.000	0.33	2.13	0.08		2.85	0.67	0.62					
3- 3-64	--	8.1	450	37	5	50	0.08	0	173	27	21	--	--	21	269	113
				1.085	0.41	2.17			2.84	0.56	0.59					
3-31-64	--	8.2	422	35	5	52	0.08	0	171	30	23	--	--	21	265	108
				1.075	0.41	2.26			2.80	0.62	0.65					
4-28-64	--	8.1	450	40	5	45	0.08	0	174	37	22	--	--	22	240	121
				2.000	0.41	1.96			2.85	0.77	0.62					

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents				parts per million equivalents per million percent reacitance value				Mineral constituents in parts per million					
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Nitrogen	Boron	Sulfur	TDS	Total hardness
Date sampled				Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	F	Br	Evap Br/C	Evap CO ₂ /C	Computed	CaCO ₃
COASTAL PL. OF LA CO HYDRO SUBUNIT U0500																	
45/12W-6D 1 S	--	8.1	4.65	45	5	50	0.41	2.17	0.08	0	184	3.7	25	--	--	23	204
6-1-64	--	8.0	4.55	43	4	51	0.33	2.22	0.08	0	193	1.5	24	--	--	21	133
6-30-64	--	8.0	4.55	2.15	0.33	0	0	0	0	3.02	0.71	0.68	0.68	--	--	21	124
8-4-64	--	8.2	4.55	44	5	48	0.41	2.09	0.08	0	189	23	26	--	--	21	292
9-1-64	--	8.3	4.75	46	5	56	0.41	2.43	0.08	0	194	29	17	--	--	21	131
9-29-64	--	8.4	4.66	44	5	45	0.41	2.20	0.05	1.96	0.13	0.60	0.48	--	--	21	235
45/12W-6D 3 S 1-13-64	--	8.2	--	29	3	46	0.25	2.00	0.05	0	160	21	20	--	--	20	136
3-4-64	--	8.2	360	30	3	53	0.25	2.30	0.05	0	154	20	19	--	--	20	320
3-31-64	--	8.0	536	40	7	53	0.58	2.30	0.08	0	209	36	33	--	--	21	228
																	88
																	129

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reaclance value				Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Baron	Sulfate	Total hardness os
Date sampled				CO ₃	Mg	K	Na	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	Calculated CO ₃	
COASTAL PL OF LA CO HYDRO SUBUNIT U05A5																
4S/12W-6D 3 S 4-28-64	--	8.0	519	51	2.54	0.41	50	2.17	0.08	0	205	31	30	--	--	148
6- 1-64	--	8.2	385	30	1.50	0.25	48	2.09	0.05	0	163	31	19	--	--	302
6-30-64	--	8.1	395	31	1.55	0.25	50	2.17	0.05	0	166	20	19	--	--	88
8- 4-64	--	8.2	388	33	1.65	0.33	48	2.09	0.05	0	2.72	0.42	0.54	--	--	234
9- 1-64	--	8.3	408	34	1.70	0.33	53	2.30	0.08	0	168	30	20	--	--	90
9-29-64	--	8.4	394	35	1.75	0.33	45	1.96	0.05	0.07	170	15	13	--	--	252
4S/12W-6J 1 S 6-30-64	--	8.6	382	10	0.50	0.16	72	3.13	0.03	7	168	11	31	--	--	99
8- 4-64	--	8.4	385	10	0.50	0.25	70	3.04	0.03	1	176	4	34	--	--	222
											2.88	0.08	0.96	--	--	102
														--	--	260
														--	--	104
														--	--	33
														--	--	261
														--	--	38
														--	--	205

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in						Mineral constituents in						
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	
Date sampled				Na	K	CO ₃	HCO ₃	SO ₄	Cl	B	SiO ₂	Ca	Na ₂ O	CaCO ₃ Computed		
COASTAL PL OF LA CO HYDRO SUBUNIT U05A5																
4S/12W-6J 1 S 9- 1-64	--	8.6	370	0.50	0.08	3.26	0.03	0.23	2.74	0.31	15	22	--	--	19	246
4S/12W-6J 2 S 12- 3-63	--	8.5	370	0.60	0.08	2.70	0.03	0.17	2.64	0.21	10	27	--	--	20	232
12-31-63	--	8.6	350	0.60	0.25	2.78	0.03	0.23	2.61	0.21	159	10	26	--	--	20
1-28-64	--	8.6	375	0.60	0.25	2.70	0.03	0.23	2.64	0.29	161	14	28	--	--	266
3- 3-64	--	8.5	365	0.60	0.08	3.04	0.03	0.17	2.70	0.29	165	14	28	--	--	19
3-31-64	--	8.6	382	0.55	0.08	3.17	0.03	0.20	2.61	0.17	159	8	29	--	--	19
4-28-64	--	8.6	370	0.65	0.25	2.87	0.03	0.23	2.64	0.21	161	10	27	--	--	19
4S/12W-6K 2 S 10- 1-63	--	8.6	340	0.75	0.16	2.35	0.03	0.23	2.39	0.17	146	8	20	--	--	18

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reactivity value				Mineral constituents in parts per million			
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica
Date sampled				CO ₃	Mg	K	Na	HCO ₃	CO ₃	F	B	SiO ₂	Evap 105°C	Evap 105°C Computed	
COASTAL PL OF LA CO HYDRO SUBUNIT U05A5															
4S/12W-6K 2 S	--	8.6	345	10	2	61	0.03	0.20	146	6	21	--	--	19	221
6- 1-64				0.50	0.16	2.65		2.39	0.12	0.59					33
6-30-64	--	8.5	345	14	4	60	1	2	159	21	18	--	--	18	226
				0.70	0.33	2.61	0.03	0.07	2.61	0.44	0.51				52
8- 4-64	--	8.5	380	23	3	54	0.05	0.07	168	20	13	--	--	17	70
				1.15	0.25	2.35		2.75	0.42	0.37					
9- 1-64	--	8.7	340	8	1	61	1	7	149	18	7	--	--	20	206
				0.40	0.08	2.65	0.03	0.23	2.44	0.37	0.20				
9-29-64	--	8.8	339	15	1	54	1	13	137	20	20	--	--	18	240
				0.75	0.08	2.35	0.03	0.43	2.25	0.42	0.56				
4S/12W-7H 1 S	75	8.5	344	21	2	54	1	0	178	0	16	0.0	--	--	42
4-22-64				1.05	0.16	2.35	0.03	0.03	2.92	0.45					
									87	13					
4S/12W-8D 2 S	--	8.5	355	38	4	37	2	2	177	4	7	--	--	21	112
9- 2-64				1.90	0.33	1.61	0.05	0.07	2.90	0.08	0.20				
4S/12W-10A 2 S	--	8.3	390	42	11	30	0.05	0.07	211	22	11	0.0	0.4	11	153
11-21-63				2.10	0.90	1.30	0.05	0.07	3.46	0.46	0.31				
				4.8	2.1	3.0	0.1	0.2	80	11	7				

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per thousand percent reaction value				Mineral constituents in parts per million							
				Calcium C. mg	Magnesium Mg. mg	Sodium Na. mg	Potassium K. mg	Carbonate CO ₃ mg	Bicarbonate HCO ₃ mg	Sulfate SO ₄ mg	Chloride Cl. mg	Nitrate NO ₃ mg	Fluoride F. mg	Boron B. mg	Silica SiO ₂ mg
COASTAL PL OF LA CO HYDRO SUBUNIT U0500 CENTRAL HYDRO SUBAREA															
4S/12W-11UA 2 S 4-14-64	68	7.9	350	4.4 2.20	1.1 0.90	2.4 1.04	2 0.05	0 1	223 0.27	13 0.23	0.0 0.10	0.10 20	254	155	
4S/12W-10G 1 S 11-21-63	69	8.3	450	4.8 2.40	6 0.49	36 1.57	3 0.08	1 0.03	211 3.46	13 0.37	0.0 0.18	0.18 1.3	232	145	
4-14-64	69	8.0	370	4.1 2.05	10 0.82	36 1.57	3 0.08	0 1	215 3.52	14 0.39	0.0 0.12	0.12 1.7	242	144	
4S/12W-11B 3 S 9- 2-64	--	8.2	360	4.6 2.30	6 0.49	27 1.17	3 0.08	0 3.29	201 0.17	5 0.14	-- --	-- 20	260	140	
4S/12W-12D 1 S 7- 6-64	--	7.9	421	6.2 3.09	7 0.58	23 1.00	2 0.05	0 21	260 4.26	12 0.23	0.0 0.02	0.07 0.02	272	184	
4S/12W-13C 1 S 10- 1-63	--	8.0	365	4.6 2.30	4 0.33	22 0.96	2 0.05	0 3.33	203 3.34	12 0.20	-- 7	-- 0.23	270	132	
10-29-63	--	8.0	375	3.9 1.95	8 0.66	17 0.74	3 0.08	-- 0	204 3.34	6 0.12	-- 0.23	-- 0.23	233	131	
12- 3-63	--	7.9	375	4.8 2.40	7 0.58	19 0.83	2 0.05	0 3.26	199 0.27	13 0.23	-- 0.23	-- 0.23	204	149	
														229	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value				Mineral constituents in parts per million						
				Calcium	Magnesium	Sodium	Potassium	Boron	Sulfate	Chloride	Nitrate	Ferric Iron	Silica	
Date sampled				N g	N g	N g	N g	HCO ₃	SO ₄	SiO ₂	CaCO ₃	Equiv (0.5°C)		
COASTAL PL OF LA CO HYDRO SUBUNIT U0505A														
4S/12W-13C 1 S 12-31-63	--	7.9	360	4.8 2.40	0.58 1.04	7 0.08	24 1.04	0 0.05	0 0.26	199 0.27	8 0.23	--	--	23 274
1-28-64	--	7.9	355	4.9 2.45	0.58 1.04	7 0.05	24 1.17	2 0.08	0 0.26	203 1.16	8 0.23	--	--	21 274
3- 3-64	--	7.8	355	4.9 2.45	0.58 1.04	7 1.17	27 0.08	0 0.26	0 0.26	199 0	7 0.20	--	--	21 222
3-31-64	--	7.9	376	4.6 2.30	0.58 1.22	7 0.08	28 0.22	3 0.22	0 0.28	200 0.31	15 0.20	--	--	21 220
4S/12W-13C 3 S 5- 1-64	--	8.0	325	4.5 2.25	0.25 1.30	3 0.05	30 1.30	2 0.05	0 0.26	199 0.33	7 0.20	--	--	23 220
8- 4-64	--	8.0	375	4.7 2.35	0.33 1.35	4 0.08	31 1.35	3 0.08	0 0.25	198 0.27	7 0.20	--	--	21 152
8-27-64	--	7.9	355	4.6 2.30	0.33 1.35	4 0.05	31 1.35	2 0.05	0 0.20	195 0.23	8 0.23	--	--	19 252
4S/12W-13D 3 S 9- 1-64	--	8.1	375	4.8 2.40	0.41 1.30	5 0.08	30 1.30	3 0.08	0 0.43	209 0.10	6 0.17	--	--	21 141
L A SAN GABRIEL RIVER HYDRO UNIT U0500														

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reacione value						Mineral constituents in parts per million						
				Calcium C o	Magnesium M g	Sodium N a	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total hardness as CaCO ₃
COASTAL PL OF LA CO HYDRO SUBUNIT U05A0																
4S/12W-13D 3 S 9-29-64	--	8.2	262	4.6	6	28	2	0	209	14	5	0.14	--	--	18	236
4S/12W-13N 2 S 3-31-64	--	8.4	383	2.1	2	6.2	2	2	161	22	14	0.39	--	--	19	238
4-28-64	--	8.4	375	2.3	3	53	2	2	163	21	13	0.37	--	--	20	198
6- 1-64	--	8.4	385	2.3	3	56	2	2	161	22	13	0.37	--	--	21	246
6-30-64	--	8.3	365	2.3	3	56	2	0	170	19	12	0.34	--	--	19	255
4S/12W-14A 2 S 10- 1-63	--	7.9	350	4.4	5	22	2	0	189	14	7	0.20	--	--	19	230
12- 3-63	--	7.9	365	4.6	6	20	2	0	185	20	9	0.25	--	--	24	222
12-31-63	--	7.8	355	4.7	5	25	3	0	189	13	8	0.23	--	--	21	262

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value				Mineral constituents in parts per million				Mineral constituents in parts per million	
				Calcium	Magnesium	Sodium	Potassium	Boron	Sulfate	Chloride	Nitrate	Fluoride	
Date sampled				Na	K	CO ₃	HCO ₃	SO ₄	Cl	F	NO ₃	SiO ₂	Evap. B/C Evap. O/C Computed
COASTAL PL OF LA CO HYDRO SUBUNIT U0505A													
4S/12W-14A 2 S 1-28-64	--	7.9	355	4.7	0.49	1.09	0.08	0	192	8	--	--	142
	--	7.9	355	4.8	0.49	1.04	0.08	0	193	0.23	0.33	19	214
4-28-64	--	7.9	355	4.8	0.49	1.04	0.08	0	193	7	0.20	--	145
	--	7.9	375	4.2	0.41	1.17	0.08	0	192	6	0.23	--	190
6-30-64	--	8.0	375	4.2	0.41	1.17	0.08	0	192	0.17	0.23	--	126
	--	8.0	375	4.8	0.41	1.22	0.08	0	190	8	0.23	--	240
8- 4-64	--	8.0	370	4.8	0.41	1.26	0.08	0	193	0.23	0.23	--	141
	--	8.0	370	4.8	0.41	1.26	0.08	0	193	6	0.17	--	210
9- 1-64	--	8.0	320	0.5	0.08	2.78	0.03	0.17	126	0.59	0.17	--	141
	--	8.0	315	0.6	0.16	2.17	0.03	1.2	134	22	0.15	--	242
4S/12W-14C 2 S 10- 1-63	--	8.0	315	0.6	0.16	2.17	0.03	0.40	2.20	0.62	0.12	--	17
	--	8.0	315	0.11	0.08	2.74	0.03	0.37	133	20	0.56	--	221
10-29-63	--	8.0	315	0.11	0.08	2.74	0.03	0.37	2.18	0.12	0.12	--	324
	--	8.0	315	0.55	0.55	0.08	0.03	0.11	133	6	0.56	--	32
6- 3-64	--	8.0										--	204

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in						Mineral constituents in									
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfur dioxide	TDS	Total hardness	Evap 65°C	Evap 05°C
Date sampled				parts per million equivalents per percent															
COASTAL PL OF LA CO HYDRO SUBUNIT U05A5																			
4S/12W-14C 2 S 6-30-64	--	8.9	320	0.25	0.08	2.70	0.03	6.2	1	1.2	134	1.1	18	--	--	17	223	17	
8- 4-64	--	8.9	318	0.30	0.08	2.74	0.03	6.3	1	1.1	134	5	21	--	--	--	18	181	19
9- 1-64	--	9.0	325	0.30	0.08	2.91	0.03	6.7	1	1.0	137	10	21	--	--	--	17	212	19
9-29-64	--	9.2	314	0.30	0.16	2.52	0.03	5.8	0.1	1.4	129	9	19	0.54	--	--	18	221	23
4S/12W-14C 5 S 12- 3-63	--	8.4	310	1.15	0.25	1.39	0.05	3.2	2	0.47	2.11	0.19	1.0	9	--	--	19	204	70
12-13-63	--	8.4	300	1.15	0.25	1.48	0.05	3.4	2	0.07	2.36	0.23	0.23	8	--	--	20	208	70
12-31-63	--	8.2	300	1.50	0.25	1.61	0.05	3.7	2	0.27	2.61	0.27	0.25	9	--	--	21	243	88
1-28-64	--	8.2	300	1.50	0.33	1.57	0.05	3.6	2	0	1.65	2.2	8	0.23	--	--	19	189	92

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million								
				Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Total hardness			
Date sampled				M g	N a	K	HCO ₃	CO ₃	SO ₄	C l	F	Evap 180°C	Evap 105°C	Calculated	Corrected			
COASTAL PL. OF LA CO HYDRO SUBUNIT U0500																		
CENTRAL HYDRO SUBAREA U0505																		
4S/12W-14C 5 S 3- 3-64	--	8.0	320	32	1.60	0.33	1.52	0.05	2	0	163	13	7	--	--	19	182	97
	--	8.1	325	30	1.50	0.41	1.43	0.05	2	0	163	12	7	--	--	20	208	96
3-31-64	--	8.1	300	33	1.65	0.33	1.35	0.05	2	0	166	15	7	--	--	20	166	99
4-28-64	--	8.1	300	33	1.65	0.33	1.35	0.05	2	0	166	15	7	--	--	18	166	58
4S/12W-16R 1 S 3- 3-64	--	8.4	300	20	1.00	0.16	2.04	0.05	2	0.07	153	8	11	--	--	19	228	58
	--	8.4	309	20	1.00	0.16	2.17	0.05	2	0.07	151	8	11	--	--	16	207	29
3-31-64	--	8.7	358	10	0.50	0.08	2.83	0.03	1	0.23	2.84	0.10	0.65	--	--	20	237	33
4S/12W-17E 1 S 8- 4-64	--	8.7	355	10	0.50	0.16	3.22	0.03	1	0.23	2.74	0.37	0.42	--	--	18	230	38
9- 1-64	--	9.0	308	10	0.50	0.25	2.83	0.03	1	0.63	2.43	0.15	0.59	--	--	20	237	33
9-29-64	--	9.0																

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity value						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	TDS Total solids	Evap 105°C
Date sampled				Na	Mg	K	Na	CO ₃	HCO ₃	SO ₄	Cl	SiO ₂	B	F	SiO ₂	CaCO ₃	
COASTAL PL OF LA CO HYDRO SUBUNIT U05A0																	
4S/12W-17P 3 S	--	8.6	335	12	0.60	0.16	2	60	2.61	0.03	6	144	12	24	--	--	38
6- 1-64	--	8.6	340	11	0.55	0.25	2	70	0.03	0.23	7	150	12	23	--	--	203
6-30-64	--	8.6	384	8	0.40	0.08	1	72	0.03	0.20	6	183	10	20	--	--	40
4S/12W-20J 4 S	--	8.6	384	8	0.40	0.08	1	72	0.03	0.20	3	300	0.21	0.56	--	--	24
8- 4-64	--	8.8	380	9	0.45	0.25	3	80	0.03	0.27	8	185	6	13	--	--	210
9- 1-64	--	8.9	364	8	0.40	0.16	2	70	0.03	0.40	12	178	23	5	--	--	35
9-29-64	--	8.5	372	16	0.80	0.33	4	67	0.05	0	198	0	25	0.0	--	--	259
4S/12W-22Q 3 S	--	8.5	358	16	0.80	0.41	5	58	0.10	0.10	0	325	0.71	18	--	--	260
7-15-64	--	8.3	358	20	11	11	8	71	1	66	0	180	0	26	0.0	--	28
4S/12W-22Q 4 S	--	8.3	358	16	0.80	0.41	5	58	0.10	0.10	0	2.95	0.73	20	--	--	57
7- 1-64	--	8.4	1670	162	8.08	3.21	39	153	0.15	0.15	6	356	277	236	0.0	--	211
4S/12W-22Q 5 S	--	8.4	1670	45	45	18	37	65	37	1	5.83	5.77	6.66	32	36	--	198
5- 8-64	--	8.4	1670	45	45	18	37	65	37	1	5.83	5.77	6.66	32	36	--	61
LA SAN GABRIEL RIVER HYDRO UNIT U0500																	
4S/12W-17P 3 S	--	8.6	335	12	0.60	0.16	2	60	2.61	0.03	6	144	12	24	--	--	38
6-30-64	--	8.6	340	11	0.55	0.25	2	70	0.03	0.23	7	150	12	23	--	--	205
4S/12W-20J 4 S	--	8.6	384	8	0.40	0.08	1	72	0.03	0.20	6	183	10	20	--	--	40
8- 4-64	--	8.8	380	9	0.45	0.25	3	80	0.03	0.27	8	185	6	13	--	--	24
9- 1-64	--	8.9	364	8	0.40	0.16	2	70	0.03	0.40	12	178	23	5	--	--	259
9-29-64	--	8.5	372	16	0.80	0.33	4	67	0.05	0	198	0	25	0.0	--	--	260
4S/12W-22Q 3 S	--	8.5	358	20	11	11	8	71	1	66	0	325	0.71	18	--	--	28
7-15-64	--	8.3	358	16	0.80	0.41	5	58	0.10	0.10	0	180	0	26	0.0	--	57
4S/12W-22Q 4 S	--	8.3	358	20	11	11	8	71	1	66	0	2.95	0.73	20	--	--	211
7- 1-64	--	8.4	1670	162	8.08	3.21	39	153	0.15	0.15	6	356	277	236	0.0	--	198
4S/12W-22Q 5 S	--	8.4	1670	45	45	18	37	65	37	1	5.83	5.77	6.66	32	36	--	61
5- 8-64	--	8.4	1670	45	45	18	37	65	37	1	5.83	5.77	6.66	32	36	--	565
LA SAN GABRIEL RIVER HYDRO UNIT U0500																	

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Chloride	Sulfate	Bicarbonate	Carbonate	Chloride	Nitrate	Fluoride	Boron	Silicate	
Date sampled	Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	E	F	B	E	CO ₃	
COASTAL PL OF LA CO HYDRO SUBUNIT U050A0																	
4S/12W-25P 1 S 7-22-64	--	7.8	1550	130 6.49	33 2.71	166 16	4 0.10	0	388 6.36	269 5.60	164 4.62	0.0	--	--	--	957	460
4S/12W-28H 1 S 11-21-63	--	8.3	340	0.35 0.9	7 0.08	77 3.25	1 0.03	2	192 3.15	10 0.21	15 0.42	0.0	0.06	0.32	11	234	22
4-14-64	78	7.9	350	22 1.10	1 0.08	62 2.70	2 0.05	0	179 2.93	14 0.29	22 0.62	0.0	0.04	0.12	14	220	59
4S/12W-35A 1 S 9- 1-64	--	8.1	5500	652 32.53	90 7.40	325 14.13	9 0.23	0	76 1.16	8 3.83	16 4.907	0.0	--	--	--	226	1998
4S/12W-35H 2 S 7-23-64	--	7.8	4950	625 31.19	84 6.91	235 10.22	7 0.18	0	128 2.10	87 1.81	1560 43.99	0.0	--	--	--	3035	1907
4S/12W-35H 4 S 8-31-64	--	8.3	29900	1280 63.87	582 47.86	5750 250.01	35 0.89	0	163 2.67	1630 33.94	11500 324.30	0.0	--	--	--	2661	5591
4S/12W-35J 1 S 9- 3-64	--	8.3	42490	808 40.32	931 76.57	8500 369.58	135 3.45	0	184 3.02	2200 45.80	15500 437.10	0.0	--	--	--	20857	5849
4S/12W-35J 2 S 8-28-64	--	8.2	365200	848 42.32	795 65.38	7250 315.23	125 3.20	0	202 3.31	1810 37.68	13600 383.52	0.0	--	--	--	28164	5389
																	24527

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million per million percent							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfuric acid	T.D.S.	Total
Date sampled				CO ₃	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	S _o ₂	Calculated	Total
COASTAL PL OF LA CO HYDRO SUBUNIT U0500																	
4S/12W-35J 4 S 7-27-64	--	8.3	34000	880	43.91	59.87	291.32	1.92	0	218	1700	12500	0.0	--	--	--	5193
4S/12W-35K 1 S 9-10-64	--	8.1	14600	1170	201	2000	16	0	130	3.57	35.39	352.50	9	90	--	22690	3748
4S/12W-35K 3 S 9- 8-64	--	8.3	31800	924	672	6100	45	0	213	18.07	142.13	11	88	--	--	--	9359
4S/12W-35R 4 S 9-15-64	--	8.4	28400	720	582	5180	62	0	200	1860	11500	0.0	--	--	--	--	5073
4S/12W-35R 6 S 8-17-64	--	8.4	543	53	6	59	2	0	212	16.70	9880	0.0	--	--	--	--	21199
4S/12W-35R 9 S 9-24-64	--	7.9	6890	679	54	630	8	0	194	1.92	0.73	11	88	--	--	--	4193
4S/12W-35R10 S 8-24-64	--	8.3	42000	560	1100	9150	280	0	242	3.18	34.77	278.62	1	11	--	--	18198
4S/12W-35R11 S 9-16-64	--	8.3	36500	760	757	6900	75	0	1.28	6.16	59.22	2	9	--	--	--	157
																	333
																	1918
																	3805
																	5925
																	30469
																	5013
																	22955

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents				parts per million equivalents per million percent reactivity				Mineral constituents in parts per million						
				Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Chloride	Nitrate	Fluoride	Boron	Silica	T.D.S.	Evap. Br/COC	Total hardness	Evap. CO ₂ /CO ₃	
Date sampled				Na	K	Ca	CO ₃	HCO ₃	SO ₄	Cl	F	B					Combed	CO ₃
COASTAL PL OF LA CO HYDRO SUBAREA U05AS																		
4S/12W-35R12 S 7-24-64	--	7.7	41200	612	1030	8600	135	0	250	2130	15600	--	--	--	--	--	5767	
				30.54	84.71	373.93	3.45	4.10	44.35	439.92								
8-19-64	--	7.9	43900	580	1150	9800	250	0	200	2510	17500	0.0	--	--	--	--	6181	
				28.94	94.58	426.10	6.39	3.28	52.26	493.50								
				5	17	77	1	1	10	90								
4S/12W-35R13 S 8-5-64	--	8.2	1060	90	12	108	3	0	194	78	191	0.0	--	--	--	--	274	
				4.49	0.99	4.70	0.08	3.18	1.62	5.39								
				4.4	10	46	1	31	16	53								
4S/12W-36E 1 S 9-30-64	--	8.3	1310	125	18	110	4	0	164	58	314	0.0	--	--	--	--	577	
				6.24	1.48	4.78	0.10	2.69	1.21	8.85								
				50	12	38	1	21	9	69								
4S/12W-36E 2 S 7-30-64	--	8.4	504	46	9	54	2	0	209	44	28	10.0	--	--	--	--	152	
				2.30	0.74	2.35	0.05	3.43	0.92	0.79	0.16							
				42	14	43	1	65	17	15	3						296	
4S/12W-36M 2 S 9-29-64	--	8.0	34700	1060	775	6830	58	0	162	1880	13300	0.0	--	--	--	--	5836	
				52.89	63.74	296.97	1.48	2.66	39.14	375.06								
				13	15	72		1	9	90								
4S/12W-36M 3 S 9-29-64	--	8.4	421	35	5	60	2	0	174	39	20	0.0	--	--	--	--	108	
				1.75	0.41	2.61	0.05	2.85	0.81	0.56								
				36	9	54	1	68	19	13								
4S/12W-36M 4 S 7-31-64	--	8.4	462	44	8	48	2	0	218	37	18	0.0	--	--	--	--	143	
				2.20	0.66	2.09	0.05	3.57	0.77	0.51								
				44	13	42	1	74	16	11								
																	264	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reactivity				Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silicate	
Date sampled				No.	No.	No.	No.	HCO ₃	CO ₃	SO ₄	Cl	F	B	CaCO ₃		
COASTAL PL OF LA GU HYDRO SUBUNIT U0500																
4S/12W-36N 1 S 9-22-64	--	7.9	3810	326	55	368	5	0	168	1070	0.0	--	--	--	1040	
4S/12W-36N 2 S 9- 4-64	--	8.3	40000	536	1020	8550	240	0	186	2250	15800	0.0	--	--	2075	
4S/12W-36N 3 S 8-20-64	--	8.2	44200	536	1180	9800	255	0	217	2510	18000	0.0	--	--	5536	
4S/12W-36N 4 S 8-14-64	--	8.3	455	48	5	44	2	0	202	31	28	0.0	--	--	28487	
5S/12W- 1E 2 S 8-18-64	--	8.2	615	2.94	0.82	2.30	0.03	1.91	0.05	3.31	0.65	0.79	0.0	--	6194	
5S/12W- 1E 3 S 8- 3-64	--	8.0	3790	223	57	450	46	0	313	211	970	0.0	--	--	32388	
5S/12W- 2A 4 S 9-25-64	--	8.1	598	1.30	0.25	4.35	0.03	1.00	1	5.13	4.39	27.35	--	--	141	
5S/12W- 2A 5 S 9-18-64	--	8.1	39400	680	941	8400	135	0	178	2100	15000	0.0	--	--	257	
				33.93	77.39	365.23	3.45			2.92	43.72	423.00				188
				7	16	76	1			1	9				339	
															5570	
															27344	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silicate	T.D.S.	Total hardness
Date sampled	C.O.	M.G.	N.A.	K	M.G.	C.O.	HCO ₃	SO ₄	C.I.	F	B	S.O ₂	°C	°C	°C	°C	Combined
COASTAL PL OF LA CO HYDRO SUBUNIT U05AO																	
5S/12W-2B 9 S 9-23-64	--	8.1	28700	336	658	5950	185	0	176	1540	10700	0.0	--	--	--	--	3547
5S/12W-2B12 S 9-23-64	--	8.1	41300	486	1030	8850	315	0	186	2408	160000	0.0	--	--	--	19456	
5S/12W-2C 1 S 9-2-64	--	8.6	1880	184	34	170	3	0	142	378	320	0.0	--	--	--	5452	
5S/12W-2F12 S 7-28-64	--	7.7	40100	1080	1060	9100	95	0	420	2170	17200	0.0	--	--	--	29180	
5S/12W-2H 8 S 9-21-64	--	8.2	18200	1420	281	2640	26	0	150	819	6600	0.0	--	--	--	7059	
5S/12W-2H 9 S 9-31-64	--	8.1	46300	70-86	23-11	114-79	0.66	2-46	17-05	186-12	8	91	--	--	--	30912	
5S/12W-2H 4 S 8-4-64	--	7.7	21400	655	597	4200	130	0	227	2690	18600	0.0	--	--	--	4702	
				32-68	49-10	182-62	3-32	1	3-72	56-01	524-02	10	90	--	--	11860	
				12	18	68	1	1	10	8	91	--	--	--	--	6416	
								2	5-26	17-49	242-80	0.0	--	--	--	33940	
										2	7	91	--	--	--	4092	
																15150	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	Specific conductance (micro-mhos at 25°C)	Mineral constituents in						Mineral constituents in									
			pH	Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfur	Total hardness	TDS	Excess TDS
Date sampled			M g	M g	M g	N g	M g	HCO ₃	CO ₃	NO ₃	F	B	F	S O ₂				
SAN FERNANDO HYDRO SUBUNIT SAN FERNANDO HYDRO SUBAREA U05B0 U05B1																		
IN/13W-24P 2 S 12-20-63	--	7.2	2300	567	30	87	6	0	1826	5	177	0.0	0.02	0.33	52	1452	1539	
				28.29	82	3.78	0.15	0.10	29.93	85	4.99	14						
					7	11												
9- 3-64	--	7.8	2250	95	207	98	13	0	1259	6	209	0.0	0.1	0.40	--	1460	1089	
				4.074	17.02	4.26	0.33	0.12	20.64	77	5.89	22						
					18	65	16											
1N/13W-26L 1 S 1-28-64	69	8.1	1120	134	67	46	1	0	329	264	106	31.0	0.02	0.09	29	980	610	
				6.69	5.51	2.00	0.03	5.39	5.50	2.99	0.50							
					47	39	14											
1N/14W- 6P 2 S 7-15-64	62	7.9	428	54	13	17	3	0	198	35	16	9.0	0.03	0.15	--	292	188	
				2.69	1.07	0.74	0.08	3.25	0.73	0.45	0.15							
					59	23	16	2	71	71	16	10						
1N/14W- 9D 2 S 10-16-63	--	8.1	470	50	22	29	3	0	226	72	11	2.1	0.04	0.14	23	326	216	
				2.50	1.81	1.26	0.08	3.70	1.50	0.31	0.03							
					44	32	22	1	67	67	6	1						
1N/14W-14B 1 S 10-14-63	65	8.2	490	44	16	36	3	0	217	44	19	3.4	0.04	0.13	22	298	176	
				2.20	1.32	1.57	0.08	3.56	0.92	0.54	0.05							
					43	26	30	2	70	18	11	1						
1N/14W-16A 1 S 3-25-64	67	7.8	474	58	15	27	3	0	220	64	11	9.0	0.07	0.11	27	312	206	
				2.89	1.23	1.17	0.08	3.61	1.33	0.31	0.15							
					54	23	22	1	67	25	6	3						
1N/14W-23E 1 S 10-14-63	--	7.9	880	80	39	67	4	0	288	215	37	7.8	0.02	0.20	21	652	360	
				3.99	3.21	2.91	0.10	4.72	4.48	1.04	0.13	10						
					31	29												

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent reaction value				Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Total dissolved solids
Date sampled				Mg	K	CO ₃	HCO ₃	SO ₄	Cl	F	B	SiO ₂	Eqd. O/C	Eqd. O/C Comp'd.	CaCO ₃	
SAN FERNANDO HYDRO SUBUNIT SAN FERNANDO HYDRO SUBAREA U05B1																
1N/14W-23E 1 S 3-25-64	70	7.6	822	83	26	69	4	0	266	184	30	40.0	0.6	0.19	25	559
				4.014	2.14	3.00	0.10	4.36	3.83	0.85	7	0.65	0.9	3.14		
				44	23	32	1	45	4.0							592
1N/14W-23E 2 S 10-14-63	--	7.7	770	77	27	67	2	0	256	176	28	16.0	0.2	0.23	22	534
				3.084	2.22	2.91	0.05	4.20	3.66	0.79	7	0.26	0.9	3.03		
				43	25	32	1	47	4.1							541
3-25-64	69	7.8	830	90	25	65	4	0	281	181	31	30.0	0.5	0.16	26	571
				4.049	2.06	2.83	0.10	4.61	3.77	0.87	5	0.48	0.9	3.28		
				47	22	30	1	47	3.39							591
1N/14W-28B 1 S 10-14-63	68	7.7	1330	144	40	125	4	0	396	373	67	7.2	0.2	0.46	23	1016
				7.019	3.29	5.44	0.10	6.49	7.77	1.89	12	0.12	1			524
				45	21	34	1	40	4.8							979
1N/15W-20 2 S 7-15-64	78	7.5	1190	91	35	132	4	0	196	392	57	4.0	0.5	0.38	--	893
				4.054	2.88	5.74	0.10	3.21	8.16	1.61	12	0.06	1			371
				34	22	43	1	25	63							812
1N/15W-2R 2 S 7-15-64	77	7.6	1100	78	28	128	4	0	209	308	69	2.0	0.6	0.50	--	784
				3.089	2.30	5.57	0.10	3.43	6.54	1.95	16	0.03	1			310
				33	19	47	1	29	54							721
1N/15W-25D 1 S 3-24-64	56	7.9	1486	202	71	65	3	0	557	339	86	30.0	0.5	0.34	4.3	1215
				10.008	5.84	2.83	0.08	9.13	7.06	2.43	13	0.48	3			797
				54	31	15		48	37							1114
1N/16W-14K 1 S 10-17-63	96	7.1	2300	76	62	400	8	0	382	766	160	0.0	0.1	0.55	22	1690
				3.079	5.10	17.39	0.20	6.26	15.95	4.51	17	0.23	60			445
				14	19	66										1682

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1962/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per cent reaction value						Mineral constituents in parts per million parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfur dioxide	TDS Evap 80°C	Total hardness as CaCO ₃
Date sampled				Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	S	5.0.2 Computed	
SAN FERNANDO HYDRO SUBUNIT SAN FERNANDO HYDRO SUBAREA U0580 U0581																	
1N/16W-14K 1 S 3-23-64	6.7	8.0	2234	.56	.59	.378	.8	0	.388	.690	.155	.0.5	.0.40	.23	1515	382	
1N/17W-26A 1 S 3-23-64	--	7.6	22220	2.079	4.85	16.44	0.20	.25	6.36	14.37	0.03	1.6	0.03	0	1562		
2N/14W-30A 1 S 11-19-63	--	7.9	556	3.12	1.62	.69	.8	0	516	10.10	.71	.6.6	.0.9	0	2128	1446	
3-25-64	6.5	7.2	549	15.57	13.32	3.00	0.20	.9	8.46	21.03	2.00	0.11	0	.36	1929		
2N/14W-30A 3 S 10-16-63	--	8.2	492	3.09	1.40	1.7	.26	3	0	230	.59	.24	.18.0	--	--	225	
11-19-63	--	7.9	530	.54	.54	1.13	0.08	.25	3.77	1.23	0.08	0.29	0.29	--	--	322	
2N/17W-22C 2 S 10-17-63	--	8.1	700	2.30	2.30	1.26	0.10	.21	6.3	.21	.11	.5	.10	.10	383	240	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reacance				Mineral constituents in parts per million equivalents per million percent value				Mineral constituents in parts per million equivalents per million percent			
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silico
Date sampled	Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	Evap 80°C	Evap 105°C	Total hardness as CaCO ₃
SAN FERNANDO HYDRO SUBAREA U05B01															
2N/17W-22C 2 S 3-23-64	--	7.9	730	6.7	22	70	3	0	360	78	35	0.9	0.01	30	456
				3.34	1.81	3.04	0.08	5.90	1.62	0.99	0.01				4.84
				40	22	37	1	69	1.19						
2N/17W-22C 6 S 8-18-64	--	7.8	955	8.0	35	81	2	0	311	186	53	2.0	0.07	--	6.41
				3.99	2.88	3.52	0.05	5.10	3.87	1.49	0.03				593
				38	28	34		49	37	14					
SYLMAR HYDRO SUBAREA U05B2															
2N/14W-30A 3 S 3-25-64	67	7.3	530	6.2	18	28	4	0	244	50	17	29.0	0.7	0.15	27
				3.09	1.48	1.22	0.10	4.00	1.04	0.48	0.47				332
				52	25	21	2	67	1.17	8	8				229
2N/15W-4B 2 S 3-25-64	67	8.0	635	7.5	22	33	4	0	283	72	24	18.0	0.4		356
				3.74	1.81	1.43	0.10	4.64	1.50	0.68	0.29				
				53	26	20	1	65	21	10	4				
3N/15W-25G 1 S 10-16-63	--	8.2	343	3.6	5	38	2	0	190	14	16	0.0	0.2	0.10	18
				1.80	0.41	1.65	0.05	3.11	0.29	0.45					216
				46	10	42	1	81	8	12					
3-75-64	--	8.1	357	3.3	8	34	2	0	198	7	17	3.5	0.3	0.02	25
				1.65	0.66	1.48	0.05	3.25	0.15	0.48	0.06				235
				43	17	39	1	82	4	12	2				116
3N/15W-34A 1 S 10-16-63	69	7.9	440	4.1	18	28	2	0	204	50	14	4.6	0.2	0.10	18
				2.05	1.48	1.22	0.05	3.34	1.04	0.39	0.07				227
				43	31	25		69	21	8					

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				Parts per million equivalents per million percent reaction value				Mineral constituents in parts per million					
				Calcium C a	Magnesium M g	Sodium N a	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica S i	TDS Evap 80°C S o	Total hardness Compumed C aCO ₃
SAN FERNANDO HYDRO SUBUNIT																	
SYLMAR HYDRO SUBAREA				U05B0	U05B2												
3N/15W-34A 1 S 3-27-64	70	7.8	400	54 2.69	5 0.41	27 0.17	4 0.10	0 3.06	1.02 1.02	10 0.13	4.9 0.28	8.0 0.13	0.3 0.13	24 23	246 273	155	
3N/15W-34P11 1 S 10-15-63	--	8.2	550	52 2.59	27 2.22	36 1.57	2 0.05	0 4.11	251 63	67 1.39	24 0.68	21.0 0.34	0.2 0.10	21 5	273 384	241	
3N/15W-34P 1 S 11-19-63	--	8.3	477	52 2.59	17 1.40	22 0.96	-- 0.96	0 3.39	207 0.96	46 0.62	22 0.62	-- 0.62	-- 0.62	-- 6	374 --	200	
3N/15W-34P11 1 S 3-27-64	67	7.7	594	66 3.29	21 1.73	35 1.52	3 0.08	0 4.34	265 1.31	63 0.62	22 0.62	26.0 0.42	0.4 0.42	31 6	380 398	251	
TULJUNGA HYDRO SUBAREA																	
				U05B3													
2N/14W-5L 1 S 3-24-64	--	7.4	1134	125 6.24	41 3.37	87 3.78	5 0.13	0 1.02	378 6.20	283 5.89	46 1.30	17.0 0.27	1.1 0.2	0.45 0.2	26 2	832 817	481
2N/14W-11A 1 S 10-15-63	--	8.2	625	79 3.94	16 1.32	47 2.04	4 0.10	0 5.02	306 1.81	87 0.54	19 0.54	0.0 0.25	1.2 7	0.38 7	430 428	263	
3-24-64	--	7.3	608	56 2.79	20 1.64	54 2.35	4 0.10	0 5.10	311 1.33	64 0.45	2.0 0.03	1.2 1.19	0.46 0.7	32 7	400 403	222	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity				Mineral constituents in parts per million			
				Calcium C o	Magnesium M g	Sodium N a	Potassium K	Chloride C l	Nitrate N O ₃	Sulfate S O ₄	Boron B
SAN FERNANDO HYDRO SUBUNIT TUJUNGA HYDRO SUBAREA											
2N/14W-11N 1 S 10-15-63	--	8.5	780	3.64 40	3.4 39	4.3 21	1.91 1	0.08 4	10 5.11	312 57	53 17
3-24-64	--	7.2	752	85 4.24 51	2.38 28	29 20	1.70 1	0.05 1	0 5.10	1.42 60	48 17
2N/14W-12C 1 S 10-15-63	62	7.9	470	42 2.10 37	22 1.81 31	40 1.74 30	0.10 0.10 2	0 4.41 79	311 0.75 79	36 0.75 14	53 0.48 5
2N/14W-12C 2 S 3-24-64	60	7.9	568	57 2.84 44	20 1.64 25	42 1.83 28	5 0.13 2	0 4.56 71	278 1.29 20	36 0.59 8	30.0 0.48 5
2N/14W-14H 1 S 3-24-64	68	7.3	485	40 2.00 44	18 1.48 33	23 1.00 22	2 0.05 1	0 3.13 69	191 0.21 69	22 0.62 5	30.0 0.48 5
3N/13W-32J 1 S 10-15-63	--	7.5	680	71 3.54 47	21 1.73 23	51 2.22 29	3 0.08 1	0 5.08 68	310 1.08 68	22 0.62 8	30.0 0.48 5
3-24-64	--	8.1	621	67 3.34 46	24 1.97 27	42 1.83 25	2 0.05 1	0 4.80 68	293 1.81 68	16 0.45 26	2.0 1.5 6
3N/14W-29F 2 S 3-24-64	--	8.6	669	1 0.05 1	0 7.39 99	170 7.39 99	0 0.63 8	19 6.03 81	376 0.27 81	20 0.56 4	0.06 0.02 7
L A SAN GABRIEL RIVER HYDRO UNIT U0500											
U05B0											
U05B3											
2N/14W-11N 1 S 10-15-63	--	8.5	780	3.64 40	3.4 39	4.3 21	1.91 1	0.08 4	10 5.11	312 57	53 17
3-24-64	--	7.2	752	85 4.24 51	2.38 28	29 20	1.70 1	0.05 1	0 5.10	1.42 60	48 17
2N/14W-12C 1 S 10-15-63	62	7.9	470	42 2.10 37	22 1.81 31	40 1.74 30	0.10 0.10 2	0 4.41 79	311 0.75 79	36 0.75 14	53 0.48 5
2N/14W-12C 2 S 3-24-64	60	7.9	568	57 2.84 44	20 1.64 25	42 1.83 28	5 0.13 2	0 4.56 71	278 1.29 20	36 0.59 8	30.0 0.48 5
2N/14W-14H 1 S 3-24-64	68	7.3	485	40 2.00 44	18 1.48 33	23 1.00 22	2 0.05 1	0 3.13 69	191 0.21 69	22 0.62 5	30.0 0.48 5
3N/13W-32J 1 S 10-15-63	--	7.5	680	71 3.54 47	21 1.73 23	51 2.22 29	3 0.08 1	0 5.08 68	310 1.08 68	22 0.62 8	30.0 0.48 5
3-24-64	--	8.1	621	67 3.34 46	24 1.97 27	42 1.83 25	2 0.05 1	0 4.80 68	293 1.81 68	16 0.45 26	2.0 1.5 6
3N/14W-29F 2 S 3-24-64	--	8.6	669	1 0.05 1	0 7.39 99	170 7.39 99	0 0.63 8	19 6.03 81	376 0.27 81	20 0.56 4	0.06 0.02 7

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reaonance value				Mineral constituents in parts per million					
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silico	Total hardness as CaCO ₃	
Date sampled	C	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	S.O.2	Equiv 180°C Evap 105°C Combed				
SAN FERNANDO HYDRO SUBUNIT TUJUNGA HYDRO SUBAREA																	
3N/14W-29J 1 S 10-15-63	--	8.05	700	95	21	4.3	10	12	344	99	20	3.0	0.02	0.11	17	492	324
			4.074 55	1.073 20	0.26 22	0.40 3	5.64 65	2.06 24	0.56 6	0.05 1							
3-24-64	--	8.02	740	78	36	42	9	0	393	97	18	4.6	0.06	0.06	22	470	343
			3.089 44	2.026 33	0.23 21	0.23 3	6.44 71	2.02 22	0.51 6	0.07 1							
3N/14W-32M 1 S 3-24-64	69	7.01	540	58	14	37	4	0	242	24	28	38.0	0.03	0.09	36	346	202
			2.089 50	1.015 20	0.10 28	0.10 2	3.97 68	0.50 9	0.79 13	0.61 10							
3N/14W-32M 2 S 10-15-63	70	7.05	570	42	29	41	4	0	232	24	34	64.0	0.02	0.11	26	368	224
			2.010 33	2.038 37	0.10 28	0.10 2	3.80 60	0.50 60	0.96 8	1.03 15							
3N/14W-33K 1 S 10-15-63	--	7.01	1340	138	72	103	7	0	403	456	52	0.0	5.0	1.27	24	1102	641
			6.089 39	5.092 34	0.48 26	0.18 1	6.61 38	9.49 54	1.47 8								
3-24-64	--	7.01	1605	190	72	113	8	0	444	557	48	2.3	0.04	0.04	7	1056	378
			9.048 46	5.092 29	0.91 24	0.20 1	7.28 36	11.60 57	1.35 7								
VERDUGO HYDRO SUBAREA	--	7.03	650	66	22	31	3	0	169	34	46	109.0	0.2	0.08	36	422	255
			3.029 50	1.081 28	0.08 21	0.08 1	2.77 42	0.71 11	1.30 20	1.76 27							
2N/13W-28N 1 S 10-15-63	--															430	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in°F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reactivity				Mineral constituents in parts per million							
				Calcium C _o	Magnesium M _g	Sodium N _a	Potassium K	Carbon dioxide HCO ₃	Bicarbonate CO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silicate SiO ₂	T.D.S. Evap 180°C	Total hardness °C	T.D.S. Evap 105°C	Computed CaCO ₃
SAN FERNANDO HYDRO SUBAREA																			
2N/13W-28N 1 S 3-24-64	67	6.6	661	66	2.26	0.08	0	177	35	50	103.0	0.2	0.02	4.8	47.0	272			
2N/13W-29F 1 S 10-15-63	7.1	—	350	3.29	2.14	0.19	1	2.90	0.73	1.41	1.66	25	11	21	44.7				
3-24-64	6.7	—	379	1.75	1.07	1.04	0.05	24	0	125	1.9	23	46.0	0.2	0.03	3.7	222	141	
2N/13W-33G 1 S 10-15-63	7.0	—	570	6.0	1.55	1.32	1.00	0.05	27	1	0.40	0.65	0.74	10	17	19	26.1		
3-24-64	6.7	—	610	4.0	1.32	0.34	0.26	0.05	31	2	0	120	1.6	25	52.0	0.2	0	4.8	280
2N/13W-33R 1 S 10-15-63	7.6	—	418	2.99	2.06	1.13	0.08	0.99	3.3	0	1.97	0.33	0.71	51	9	18	22	272	144
3-24-64	6.8	—	418	4.8	3.3	1.18	0.1	0.96	12	0	1.53	3.9	38	83.0	0.2	0.08	2.5	382	226
2N/13W-33R 1 S 10-15-63	7.1	—	385	1.95	1.07	0.96	0.05	1.73	2.2	0	2.51	0.81	1.07	1.34	14	19	23	368	
3-24-64	6.8	—	418	5.2	2.20	0.99	1.00	0.05	24	1	0.75	0.33	0.56	59	8	13	20	42.7	253
2N/13W-33R 1 S 10-15-63	7.6	—	385	3.9	1.95	1.07	0.96	0.05	27	1	0.75	0.37	0.45	68	9	11	12	40.9	273
3-24-64	6.8	—	385	4.8	2.27	1.27	0.24	0.05	24	1	1.70	1.8	16	31.0	0.4	0.02	4.3	264	151
LA SAN GABRIEL RIVER HYDRO UNIT U0500																			
U05B0 U05B4																			
2N/13W-28N 1 S 3-24-64	67	6.6	661	66	2.26	0.08	0	177	35	50	103.0	0.2	0.02	4.8	47.0	272			
2N/13W-29F 1 S 10-15-63	7.1	—	350	3.29	2.14	0.19	1	2.90	0.73	1.41	1.66	25	11	21	44.7				
3-24-64	6.7	—	379	1.75	1.07	1.04	0.05	24	1	0.40	0.65	0.74	10	17	19	26.1			
2N/13W-33G 1 S 10-15-63	7.0	—	570	6.0	1.55	1.32	1.00	0.05	34	2	0	120	1.6	25	52.0	0.2	0	4.8	280
3-24-64	6.7	—	610	4.0	1.32	0.34	0.26	0.05	31	1	0.97	0.33	0.71	51	9	18	22	272	144
2N/13W-33R 1 S 10-15-63	7.6	—	418	2.99	2.06	1.13	0.08	0.99	3.3	0	1.53	3.9	38	83.0	0.2	0.08	2.5	382	226
3-24-64	6.8	—	418	4.8	3.3	1.18	0.1	0.96	12	0	2.51	0.81	1.07	1.34	14	19	23	368	
2N/13W-33R 1 S 10-15-63	7.1	—	385	3.9	1.95	1.07	0.96	0.05	27	1	0.75	0.37	0.45	68	9	11	12	42.7	253
3-24-64	6.8	—	385	4.8	2.27	1.27	0.24	0.05	24	1	1.70	1.8	16	31.0	0.4	0.02	4.3	264	151
L A SAN GABRIEL RIVER HYDRO UNIT U0500																			

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reacitance value						Mineral constituents in parts per million									
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfur dioxide	T.D.S.	Total hardness		
Date sampled				Mg	Mg	K	No	CO ₂	HCO ₃	SO ₄	Cl	F	B	S O ₂	CaCO ₃		Evap 10°C	Evap 10°C	Computed
LA SAN GABRIEL RIVER HYDRO UNIT U0500																			
SAN FERNANDO HYDRO SUBUNIT EAGLE ROCK HYDRO SUBAREA	U05B0	U05B5	1N/13W-35N 2 S 8- 4-64	--	7.3	638	48	24	52	1	0	240	53	45	27.0	0.9	22	380	219
							2.40 36	1.97 30	2.26 34	0.03		3.93 58	1.10 16	1.27 19	0.44 7				

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million							
				Calcium C o	Magnesium M g	Sodium N a	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silicate SiO ₂	Total Evap. B/C ₀ os Computed	
RAYMOND HYDRO SUBUNIT PASADENA HYDRO SUBAREA																	
IN/12W-20B 1 S 10-28-63	82	7.5	--	64 3.19	1.56 2.6	19 1.17	27 20	--	0 3.39	68 1.42	30 0.85	9.5 0.15	--	--	--	346 319	
IN/12W-21K 1 S 11-14-63	72	7.7	260	21 1.05	5 0.41	24 1.04	1 0.03	0 1.051	0 0.29	9 0.25	22.0 0.35	1.2 0.15	0.17 1.15	25 150	238 150		
4-13-64	74	7.9	220	20 1.00	3 0.25	22 0.96	1 0.03	0 1.43	0 0.08	9 0.31	20.0 0.32	1.2 1.15	0.17 14.0	25 140	63 140		
IN/12W-26A 1 S 11-14-63	74	7.9	340	32 1.60	8 0.66	31 1.35	1 0.03	0 2.31	0 0.35	14.1 0.45	29.0 0.47	0.8 1.3	0.17 1.13	25 218	150 218		
1-13-64	74	8.2	330	31 1.55	10 0.82	31 1.35	2 0.05	0 2.39	0 0.27	14.6 0.56	28.0 0.45	0.8 1.15	0.14 1.12	19 22.7	113 22.7		
IN/12W-26C 1 S 11-14-63	73	7.8	290	25 1.25	4 0.33	39 1.70	1 0.03	0 2.02	0 0.62	12.3 0.64	14.0 1.19	2.0 1.10	0.26 0.23	22 19.2	79 19.2		
4-13-64	74	8.1	320	26 1.30	4 0.33	38 1.65	1 0.03	0 2.08	0 0.50	12.7 0.50	12.0 0.34	1.4 0.19	0.29 6	19 6	82 20.9		
IN/12W-34E 1 S 11-18-63	70	8.0	365	35 1.75	10 0.82	27 1.17	2 0.05	0 2.46	0 0.50	15.0 0.45	18.0 0.45	0.8 0.29	0.20 14.12	25 8	200 214		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent transmittance value								Mineral constituents in parts per million						
				Calcium C. o.	Magnesium M. g.	Sodium N. a.	Potassium K.	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl.	Nitrate NO ₃	Fluoride F.	Boron B.	Silica SiO ₂	TDS Total dissolved solids	Equiv. BGS-Ca	Equiv. BGS-CO ₃
RAYMOND HYDRO SUBUNIT PASADENA HYDRO SUBAREA																		
1N/12W-34E 1 S 4-13-64	69	7.5	344	3.6 1.80	9 0.74	2.6 0.05	0 1.13	0 2.51	0 71	1.6 0.45	1.6 0.33	1.6 0.27	17.0 0.6	0.21	23	204	127	
1N/12W-34N 1 S 11-14-63	70	7.6	960	12.3 6.14	2.7 2.22	6.2 2.70	3 0.08	0 4.80	0 4.3	15.6 2.40	85 2.20	44.0 0.71	0.49	23	221			
4-13-64	74	7.6	990	12.0 5.99	3.2 2.63	6.7 2.91	3 0.08	0 4.97	0 4.3	16.2 3.37	84 2.37	57.0 0.92	0.8 2.0	0.37	21	706	418	
1N/12W-35B 1 S 11-14-63	62	8.4	340	2.7 1.35	7 0.58	3.2 1.39	9 0.03	9 0.30	9 1.90	11.6 0.29	1.4 0.56	12.0 0.19	0.8 0.17	0.29	19	668	431	
4-13-64	64	8.1	380	3.5 1.75	8 0.66	3.1 1.35	1 0.03	0 2.41	0 1.65	14.7 0.33	16 0.56	26.0 0.42	0.8 0.11	0.17	20	696		
MONK HILL HYDRO SUBAREA																		
1N/12W-6M 6 S 11-14-63	66	7.7	520	5.2 2.59	14 1.15	3.0 1.30	2 0.05	0 3.21	0 66	32 0.67	27 0.76	19.0 0.31	0.4 0.15	0.11	32	312	187	
4-13-64	66	8.0	635	5.8 2.89	18 1.48	5.6 2.43	2 0.05	0 3.51	0 51	7.8 1.62	52 1.47	15.0 0.24	0.2 0.24	0.11	30	308	219	
																	415	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents				Mineral constituents in parts per million			
				Calcium Mg Ca	Magnesium Mg	Sodium Na	Potassium K	Boron B	Chloride Cl	Nitrate NO ₃	Fluoride F
RAYMOND HYDRO SUBUNIT MONK HILL HYDRO SUBAREA											
IN/12W-8H 1 S 11-18-63	65	7.9	615	75 3.74 51	2.14 19	0.08 1	0	345 5.65 79	18 0.51 8	29.0 0.47 7	0.17 0.47 7
4-13-64	65	8.2	790	42 2.10 24	33 2.71 31	3 0.08 44	0	258 4.23 48	52 2.75 31	18.0 0.4 1.47 3	0.19 0.29 17
IN/12W-8H 2 S 11-18-63	68	7.5	410	41 2.05 49	15 1.23 29	20 0.87 21	0	152 2.49 62	18 0.51 8	41.0 0.8 13	0.09 0.66 17
4-13-64	70	8.1	360	40 2.00 54	10 0.82 22	20 0.87 23	0	132 2.16 60	15 0.31 9	34.0 0.6 16	0.06 0.55 15
IN/12W-9E 1 S 11-14-63	72	7.7	290	26 1.30 42	10 0.82 26	22 0.96 31	0	120 1.97 67	7 0.15 5	28.0 0.39 13	0.06 0.45 15
1-10-64	--	--	326	34 1.70 48	10 0.82 23	23 1.00 28	1	127 2.08 62	10 0.21 6	34.0 0.55 16	0.07 0.55 16
3-24-64	--	--	--	--	--	--	--	--	--	--	--
IN/12W-9R 1 S 11-18-63	71	7.7	330	31 1.55 46	10 0.82 24	23 1.00 29	1	125 2.05 62	5 0.10 3	39.0 0.63 16	0.06 0.63 19

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reaction value				Mineral constituents in parts per million				
				Calcium C _o	Magnesium M _g	Sodium N _a	Potassium K	Carbonate C _O ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Sulfur S _O ₂	Total dissolved solids TDS (mg/1000)
RAYMOND HYDRO SUBUNIT MONK HILL HYDRO SUBAREA																
1N/12W-9R 1 S 4-13-64	72	8.0	315	1.35 27	0.82 13	0.96 22	0.03 30	0.1 0	0.084 0.08	4 0.65	23 21	33.0 0.53	0.06	36	214	
SANTA ANITA HYDRO SUBAREA				J05C3												109
1N/11W-21C 2 S 11-18-63	--	7.9	395	1.35 30	1.07 24	2.00 45	0.03 1	0 3.10	1.89 0.77	3.7 0.31	11 5	14.0 0.23	2.0	0.37	20	212
68	8.2	430	4.30	2.9 1.45	8 0.66	59 2.57	1 0.03	0 3.23	197 0.83	4.0 0.34	12 7	8.9 0.14	2.4	0.43	16	121
4-13-64																
1N/11W-21G 2 S 11-18-63	69	7.8	450	4.3 2.15	7 0.58	48 2.09	2 0.05	0 3.13	191 0.73	35 0.51	18 0.44	27.0 0.44	0.8 0.11	0.33	18	264
--	8.0	550	4.5 2.25	34 2.80	1.09 4.5	25 0.05	2 0.06	0 4.06	248 0.90	43 0.65	23 0.47	29.0 0.11	0.6 8	0.21	22	274
1-13-64																
1N/11W-21G 5 S 7-21-64	74	7.7	437	1.35 1.40	0.16 56	2.48 0.03	2 1	0 0.16	181 69	29 0.60	18 0.51	14.0 0.23	1.1 12	0.22	20	278

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity value						Mineral constituents in parts per million						
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron		
Date sampled				CO ₃	Mg	Na	K	CO ₃	HCO ₃	SO ₄	B	SO ₂	Sulfur dioxide	Total Evap 80°C os Computed		
SAN GABRIEL VALLEY HYDRO SUBUNIT U0500 MAIN SAN GABRIEL HYDRO SUBAREA U0501																
1S/ 9W-1F 2 S 6-23-64	69	7.8	598	5.3	2.64	1.64	1.96	0.03	0	178	64	30	75.0	0.03	--	392
1S/ 9W-2H 1 S 8-18-64	70	8.2	998	10.2	3.6	2.96	2.09	0.05	0	180	142	82	130.0	--	--	376
1S/ 9W-2Q 1 S 8-18-64	74	8.5	758	5.8	2.0	1.64	3.26	0.08	2.95	2.96	2.31	2.10	22	20	--	403
1S/ 9W-3C 1 S 6-23-64	--	7.5	770	6.8	3.9	3.2	1.39	0.08	0	192	142	52	34.5	--	--	631
8-18-64	68	8.3	662	6.3	2.6	3.2	1.39	0.05	3.15	2.96	1.47	0.56	7	7	--	227
1S/ 9W-4J 1 S 6-23-64	--	7.6	650	5.7	2.5	3.6	1.52	0.08	0	256	119	42	10.0	0.04	0.05	479
1S/ 9W-4R 1 S 8-18-64	70	8.4	644	6.4	2.0	3.5	1.52	0.08	4.20	2.48	1.18	0.16	15	15	--	556
1S/ 10W-3A 1 S 8-11-64	68	8.4	700	9.0	1.56	2.7	1.17	0.05	1	52	31	2	16	16	--	330
																439

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reaction value				Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Total TDS
Date sampled				C.O.	M.Q.	N.A.	K	CO ₃	HCO ₃	SO ₄	Cl	B	SiO ₂	F	Calcd	
SAN GABRIEL VALLEY HYDRO SUBUNIT U0500 MAIN SAN GABRIEL HYDRO SUBAREA U0501																
15/10W-8-13-64	3A 1 S	--	7.7	670	78 3.89	27 2.22	32 1.39	0.05 0.08	0 4.84	295 0.62	32 0.62	22 0.26	78.0 1.26	0.07	--	414
15/10W-8-12-64	3C 2 S	--	7.7	625	89 4.44	13 1.07	27 1.17	3 0.08	0 4.49	274 0.81	39 0.68	24 0.79	49.0 0.2	0.29	--	416
15/10W-2-14-64	3D 1 S	--	7.9	510	69 3.44	12 0.99	17 0.74	3 0.08	0 3.85	235 0.54	26 0.51	18.0 0.29	18.0 0.2	0.15	17	306
7-7-64	--	7.6	605	79 3.94	17 1.40	22 0.96	3 0.08	0 4.43	270 0.77	37 0.54	19 0.54	41.0 0.66	0.10	--	374	
8-17-64	--	7.8	670	72 3.59	23 1.89	17 0.74	1 0.03	0 4.13	252 1.21	58 0.45	16 0.45	40.0 0.65	0.15	--	380	
15/10W-2-14-64	4G 1 S	6.8	8.0	440	69 3.44	6 0.49	18 0.78	4 0.10	0 3.52	215 0.73	35 0.39	14 0.13	8.3 0.1	0.24	13	274
7-8-64	--	7.8	455	61 3.04	11 0.90	19 0.83	4 0.10	0 3.64	222 0.62	30 0.51	18 0.15	9.0 0.15	0.15	--	351	
8-10-64	--	8.1	450	62 4.2	18 2.10	17 1.97	2 0.87	0 3.82	233 0.65	31 0.39	14 0.06	4.0 0.06	0.16	--	282	
																197
																273
																261
																261
																270
																197
																286
																204
																254

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million							
				Colium C o	Magnesium M g	Sodium N a	Potassium K	Chloride Cl	Bicarbonate HCO ₃	Sulfate SO ₄	Nitrate NO ₃	Fluoride F	Boron B	Silicate SiO ₂	T.O.S. Evap 80°C	Total hardness °S	
SAN GABRIEL VALLEY HYDRO SUBUNIT U0500 MAIN SAN GABRIEL HYDRO SUBAREA U0501																	
15/10W-4R 2 S 8-18-64	--	7.5	590	59	2.94	2.47	1.13	0.08	0	268	38	22	55.0	0.2	0.05	--	386
				44	37	17	1		4.39	0.79	0.62	0.89	13				271
15/10W-6N 1 S 8-18-64	--	7.4	370	66	4	11	3	0	187	22	13	9.0	0.2	0.07	--	365	
				3.29	0.33	0.48	0.08		3.06	0.46	0.37	0.15	4				181
15/10W-7A 1 S 8-10-64	8.1	8.4	628	84	4	18	4	0	216	40	52	26.1	--	--	--	234	
				4.19	0.33	0.78	0.10		3.54	0.83	1.47	0.42	7				220
15/10W-7A 6 S 6-25-64	--	7.9	750	71	41	17	4	0	216	56	106	12.0	0.2	0.08	--	226	
				3.54	3.37	0.74	0.10		3.54	1.17	2.99	0.19	2				334
8-18-64	--	7.8	760	69	44	19	5	0	224	52	110	13.0	0.2	0.07	--	346	
				3.44	3.62	0.83	0.13		3.67	1.08	3.10	0.21	3				413
15/10W-7K 2 S 8-18-64	--	7.5	860	89	47	17	5	0	292	58	106.0	0.1	0.10	--	54.4		
				4.44	3.87	0.74	0.13		4.79	1.21	1.64	1.71	18				353
15/10W-8A 2 S 8-18-64	--	7.7	490	66	17	13	7	0	226	29	18	32.0	0.2	0.07	--	422	
				3.29	1.40	0.57	0.18		3.70	0.60	0.51	0.52	10				416
15/10W-9F 1 S 8-17-64	--	7.5	600	83	17	21	4	0	237	46	29	60.0	0.1	0.07	--	56.8	
				4.14	1.40	0.91	0.10		3.88	0.96	0.82	0.97	12				524
				6.3	2.1	14	2		59	14	15					293	
																235	
																293	
																277	
																377	

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reactivities value				Mineral constituents in parts per million				
				Calcium C. o.	Magnesium M. g.	Sodium N. a.	Potassium K.	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl.	Nitrate NO ₃	Fluoride F.	Boron B.	Sulfur S. O ₂	
SAN GABRIEL VALLEY HYDRO SUBUNIT U0500 MAIN SAN GABRIEL HYDRO SUBAREA U0501																
1S/10W-110C 1 S 6-25-64	62	8.0	6.00	6.0	2.99	2.38	0.91	0.08	21	0	231	51	18	65.0	0.1	
					4.7	3.7	1.4	1		0.79		0.51	1.05	0.06	--	
										59		17	8		452	
8-12-64	--	7.4	590		83	16	22	3	0	225	54	19	64.0	0.2	--	
					4.14	1.32	0.96	0.08		3.69	1.12	0.54	1.03		361	
						64	20	15		58	18	8	16		406	
1S/10W-11UP 1 S 8-12-64	--	7.6	540	75	13	23	2	0	221	54	14	58.0	0.4	--	273	
				3.74	1.07	1.00	0.05		3.62	1.12	0.39	0.94			372	
					64	18	17	1		60	18	6	15		360	
1S/10W-1176 1 S 10-10-63	--	7.8	520	73	15	19	4	0	236	37	17	43.0	0.2	--	241	
				3.64	1.23	0.83	0.10		3.87	0.77	0.48	0.69			348	
					63	21	14	2		67	13	8	12		382	
					63	21	14	2							244	
6-25-64	--	7.8	580		64	24	13	4	0	221	42	21	49.0	0.1	--	339
					3.19	1.97	0.57	0.10		3.62	0.87	0.59	0.79			414
						55	34	10		62	15	10	13			258
1S/10W-119N 1 S 6-25-64	--	8.1	960	77	46	67	6	0	226	18.0	85	62.0	0.1	--	326	
				3.84	3.78	2.91	0.15		3.70	3.75	2.40	1.00			720	
					36	35	27	1		34	35	22	9			381
1S/10W-119Q 6 S 6-25-64	66	7.8	550	58	22	22	4	0	235	4.2	20	37.0	0.2	--	634	
				2.89	1.81	0.96	0.10		3.85	0.87	0.56	0.60			364	
					50	31	17	2		65	15	10	10			235
1S/11W-11M 1 S 8-18-64	--	7.8	350		50	9	11	2	0	182	23	6	5.0	0.2	--	321
					2.50	0.74	0.48	0.05		2.98	0.48	0.17	0.08			242
					66	20	13	1		80	13	5	2			162
															196	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp. when sampled in °F	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity value						Mineral constituents in parts per million						
			Calcium C _a	Magnesium M _g	Sodium N _a	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total hardness as CaCO ₃
Date sampled															
SAN GABRIEL VALLEY HYDRO SUBUNIT U05D01															
15/11W-6-26-64	2G 2 S	63	8.0	510	4.8	3.0	1.9	0.259	24	14	31.0	0.2	0.14	--	244
15/11W-8-10-64	2J 1 S	70	8.2	608	4.0	2.47	0.83	0.05	75	9	0.50	0.39	0.50	--	330
15/11W-8-11-64	6H 2 S	68	8.1	285	8.9	1.7	1.0	0	294	25	16	1.42	--	--	296
15/11W-10-11-63	8A 3 S	67	7.9	330	4.1	2.3	2.3	0	80	9	0.45	0.23	--	--	292
6-26-64	7.8	360	2.05	0.66	1.09	0.03	25	1	0	192	14	5	4.5	--	319
15/11W-6-26-64	7.8	390	5.4	1.15	0.49	1.00	0.13	5	1.02	0.1	0.14	0.07	--	--	82
15/11W-7-17-64	10F 1 S	63	7.3	375	4.5	1.15	0.65	0.03	29	1	0.23	0.05	0.05	--	107
15/11W-8-3-64	11F 4 S	68	8.2	466	5.7	2.23	0.87	0.05	17	1	0.29	0.08	0.13	17	234

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (II)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in equivalents per million						Mineral constituents in parts per million									
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silicate	Total hardness	TDS		
SAN GABRIEL VALLEY HYDRO SUBUNIT U0500 MAIN SAN GABRIEL HYDRO SUBAREA U0501																			
1S/11W-11P 7 S	63	7.8	520	6.5	1.24	1.56	0.78	0.10	4	0	257	29	21.0	0.2	0.12	--	330	240	
6-26-64				57	57	1.24	1.56	0.78	0.10	2	4.21	0.60	0.51	0.34	6		301		
1S/11W-12A 3 S	--	7.6	323	41	1.2	8	3	0	166	23	4	6.0	0.5	0.03	--		216	152	
7-17-64				59	2.05	0.99	0.35	0.08		2.72	0.48	0.11	0.10	3		179			
1S/11W-12B 2 S	--	7.9	310	46	9	9	3	0	175	16	3	4.0	0.2	0.05	--	198	152		
8-18-64				66	2.30	0.74	0.39	0.08		2.87	0.33	0.08	0.06	2			176		
1S/11W-14M 1 S	--	8.0	600	68	3.39	2.63	0.61	0.10	4	0	220	85	33	27.0	0.2	0.10	--	436	301
6-26-64				50	50	3.39	2.63	0.61	0.10	1	3.61	1.77	0.93	0.44	7		371		
1S/11W-17G 2 S	64	8.2	370	39	1.95	1.07	1.09	0.03	1	0	214	17	4.0	1.0	0.23	--	226	151	
6-26-64				47	4.7	1.07	1.09	0.03	1	3.51	0.35	0.31	0.06	8			216		
1S/11W-24Q 7 S	68	7.5	562	74	7.69	1.15	1.04	0.10	4	0	229	63	28	13.0	0.4	0.05	20	371	242
7-17-64				62	62	1.15	1.04	0.10	2	3.75	1.31	0.79	0.21	3			253		
1S/11W-25Q 1 S	--	7.8	750	99	4.94	1.97	1.30	0.10	4	0	327	61	41	30.0	0.2	0.08	23	496	346
10-10-63				59	59	4.94	1.97	1.30	0.10	1	5.36	1.27	1.16	0.48	14		473		
6-25-64	--	8.1	780	27	6.35	6.17	1.26	0.10	4	0	337	68	57	30.0	0.2	0.05	--	550	376
				15	15	6.35	6.17	1.26	0.10	1	5.52	1.42	1.61	0.48	18		456		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million					
			Ca	Mg	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfate
Date sampled			Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SO ₄	SO ₄	
SAN GABRIEL VALLEY HYDRO SUBUNIT U05DU MAIN SAN GABRIEL HYDRO SUBAREA U05D1														
1S/11W-26K 1 S 6-26-64	65	7.9	520	64 3.19 54	17 1.40 24	28 0.10 21	4 0	0 0	221	67	28	14.0 0.23	0.2	0.05 --
1S/11W-26L 7 S 6-11-64	65	8.3	893	104 5.19 55	23 1.89 20	50 2.17 23	5 0.13 1	0 4.25 44	259	58	43.0 0.69	--	--	331 354
1S/11W-30C 3 S 6-25-64	--	7.5	430	33 1.65 38	19 1.56 36	26 1.13 26	1 0.03 1	0 3.20 74	195	24	4.0 0.59	0.6 0.06	0.17 1	557 228
1S/11W-30D 2 S 6-26-64	--	7.6	390	34 1.70 4.3	11 0.90 23	30 1.30 33	0 0.03 1	0 2.87 73	175	29	6.0 0.60	0.6 0.10	0.13 3	161 225
1S/11W-33N 7 S 6-26-64	--	8.9	880	92 4.59 48	41 3.37 35	34 1.48 15	5 0.13 1	0 3.00 39	232	193	9.0 1.86	0.2 0.15	0.08 2	214 210
1S/11W-33P 1 S 6-25-64	--	8.0	1070	105 5.24 4.4	46 3.78 32	63 2.74 23	5 0.13 1	0 3.00 33	243	266	24.0 5.54	0.2 2.14	0.15 3	130 670
1S/12W-10E 1 S 6-26-64	60	7.6	570	46 2.30 38	22 1.81 30	45 1.96 32	2 0.05 1	0 3.20 53	195	36	4.2 0.75	0.2 1.18	0.07 0.90	554 760
1S/12W-11N 2 S 8-12-64	71	7.8	419	41 2.05 4.6	12 0.99 22	31 0.05 30	2 0.05 1	0 2.92 67	178	17	24 0.68	0.2 0.39	0.07 16	451 398

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Mineral constituents in			parts per million equivalents per million percent reactivity			Mineral constituents in parts per million			
			Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fugacity
Date sampled			C _o	Mg _q	K _o	CO ₃	HCO ₃	SO ₄	Cl _o	F	B	SiO ₂
SAN GABRIEL VALLEY HYDRO SUBUNIT U0500 MAIN SAN GABRIEL HYDRO SUBAREA U0501												
2S/ 9W- 4K 1 S 6-25-64	--	7.5	1030	1.06	51	40	2	0	350	197	46	17.0
			5.29	4.19	1.74	0.05		5.74	4.10	1.30	0.27	0.10
			4.7	3.7	15			50	36	11	2	--
2S/ 9W- 8R 3 S 6-25-64	--	7.9	1250	1.33	61	61	3	0	383	280	70	26.0
			6.64	5.02	2.65	0.08		6.28	5.83	1.97	0.42	0.45
			4.6	3.5	18	1		4.3	4.0	14	3	--
2S/10W- 8E 1 S 8-11-64	6.8	8.2	1270	1.25	40	99	2	0	338	212	114	31.0
			6.24	3.29	4.30	0.05		5.54	4.41	3.21	0.50	--
			4.5	2.4	31			4.1	3.2	23	4	--
2S/10W- 8E 2 S 10-10-63	--	7.3	1180	1.50	23	92	2	0	356	209	100	31.0
			7.49	1.89	4.00	0.05		5.83	4.35	2.82	0.50	0.2
			5.6	1.4	30			4.3	3.2	21	4	--
6.8	8.1	1210	97	59	100	2	0	356	213	116	25.0	0.4
			4.84	4.85	4.35	0.05		5.83	4.43	3.27	0.40	0.16
			3.4	3.4	31			4.2	3.2	23	3	--
2S/10W-10N 1 S 8-11-64	8.2	8.5	1170	1.17	33	95	4	0	371	182	119	11.7
			5.84	2.71	4.13	0.10		6.08	3.79	3.36	0.19	--
			4.6	2.1	32	1		4.5	2.8	25	1	--
2S/10W-10P 2 S 6-25-64	--	8.2	1260	94	56	100	4	0	355	208	114	14.0
			4.69	4.61	4.35	0.10		5.82	4.33	3.21	0.23	0.45
			3.4	3.4	32	1		4.3	3.2	24	2	--
2S/10W-13H 2 S 6-25-64	--	7.6	1550	1.25	66	100	2	0	394	289	116	25.0
			6.24	5.43	4.35	0.05		6.46	6.02	3.27	0.40	0.53
			3.9	3.4	27			4.0	3.7	20	2	--

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per percent reactivity				Mineral constituents in parts per million equivalents per percent value				Mineral constituents in parts per million equivalents per percent reactivity				Mineral constituents in parts per million equivalents per percent value						
				Ca	Mg	K	Na	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silicate	T.D.S.	Total hardness	Expt. Boiling point at 105°C	Expt. Boiling point at 105°C		
SAN GABRIEL VALLEY HYDRO SUBUNIT U0500																						
MAIN SAN GABRIEL HYDRO SUBAREA U0501																						
2S/11W- 4D 2 S 7-17-64	--	8.1	10.04	120	67	6	0	2.22	248	71	14.0	0.4	0.05	--	74.5	40.3						
2S/11W- 5G 1 S 6-26-64	63	7.9	550	5.99	2.06	2.91	0.15	3.64	5.6	2.00	0.23	0.23	0.05	--	66.1	66.1						
2S/11W- 6R 3 S 7-17-64	--	7.5	791	59	2.94	2.22	0.70	0.08	0	2.22	72	24	8.0	0.2	0.05	--	37.0	25.8				
2S/11W- 8A 5 S 7- 1-64	66	7.9	685	4.9	37	12	1	3.64	1.50	0.68	0.13	0.13	0.05	--	31.8	31.8						
2S/11W-11M 2 S 7-24-64	68	7.2	650	6.19	1.24	22	20	4	0	279	158	31	13.0	0.4	0.07	26	58.6	40.0				
IN/ 9W-29C 1 S 10-10-63	64	7.9	605	6.9	2.08	1.81	0.87	0.10	4.57	3.39	0.87	0.21	0.21	0.05	--	53.6	53.6					
IN/ 9W-29C 2 S 6-24-64	64	8.0	640	5.6	1.32	1.65	0.10	1	51	37	10	2	7.0	0.2	0.05	--	44.8	27.4				
IN/ 9W-29E 1 S 10-10-63	64	7.7	580	3.47	3.39	2.22	1.43	0.15	4.51	2.64	1.21	0.11	0.08	0.05	--	42.0	25.8					
										38	17	2	33.0	0.4	0.06	1.9	4.22	28.1				

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in						Mineral constituents in					
				Calcium	Magnesium	Sodium	Potassium	Chloride	Boron	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfate
Date sampled				CO ₃	Mg	Na	K	CO ₃	Cl	F	CO ₃	Cl	SO ₄	Cl	SO ₄
SAN GABRIEL VALLEY HYDRO SUBUNIT U0500															
MAIN SAN GABRIEL HYDRO SUBAREA U0501															
1N/ 9W-29M 1 S 8-10-64	75	8.4	661	75	3.74	1.64	2.0	2.7	0.08	0	198	58	26	--	--
				56	25	1.56	2.5	1.17	0.25	3.25	1.21	0.73	1.42	--	269
1N/ 9W-32G 1 S 10-10-63	64	7.7	850	103	5.14	2.88	3.5	3.6	1	0	300	112	41	89.0	0.2
				53	30	1.57	1.6	1.57	0.03	4.92	2.33	1.16	1.44	--	394
6-24-64	64	7.5	880	96	4.79	3.13	3.8	3.6	1	0	286	109	43	93.0	0.1
				50	33	1.13	1.57	1.57	0.03	4.69	2.27	1.21	1.50	--	608
1N/10W-31A 1 S 8-11-64	--	8.1	500	76	3.79	0.82	1.0	1.4	4	0	226	36	14	22.0	0.2
				71	15	0.82	1.1	0.61	0.10	3.70	0.75	0.39	0.35	--	396
1N/10W-31M 1 S 8-11-64	--	8.1	480	61	3.04	1.32	1.6	1.4	3	0	228	31	13	16	--
				60	26	0.61	1.2	1.2	0.08	3.74	0.65	0.31	0.32	--	557
1N/10W-32J 2 S 8-10-64	?1	8.6	409	54	2.69	1.07	1.3	1.0	3	15	192	30	9	7.0	--
				63	25	0.43	1.0	0.43	0.08	0.50	3.15	0.62	0.25	0.11	--
8-17-64	--	7.7	420	60	2.99	0.90	11	14	3	0	204	28	14	7.0	0.2
				65	20	0.61	1.3	1.3	0.08	3.34	0.58	0.39	0.11	--	188
1N/10W-34L 1 S 8-13-64	--	7.4	500	78	3.89	0.58	7	15	3	0	215	36	13	40.0	0.4
				75	11	0.65	1.1	0.65	0.08	3.52	0.75	0.37	0.65	--	224

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reactivity value				Mineral constituents in parts per million			
				Ca	Mg	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica
Date sampled				No.	K	Na	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	CaCO ₃	Total hardness as CaCO ₃ Computed
SAN GABRIEL VALLEY HYDRO SUBUNIT U0500															
IN/10W-34N 1 S 2-14-64	66	7.9	460	63	3.14	1.07	0.52	0.10	12	4	0	226	9	19.0	0.2
				65	22	60	1.32	0.08	11	2	0	3.70	9	0.25	0.31
7- 7-64	--	8.0	460	60	2.99	1.32	0.61	0.08	16	3	0	224	14	26.0	0.2
				60	26	60	1.2	2	12	2	0	3.67	10	0.39	0.42
8-10-64	--	8.1	480	59	2.94	1.23	0.61	0.10	15	4	0	227	19	14	0.2
				60	25	60	1.3	2	13	2	0	3.72	8	0.39	0.35
9-11-64	--	8.1	380	49	2.45	0.82	0.57	0.10	10	4	0	163	25	13	0.2
				62	21	62	0.57	0.10	14	3	0	2.67	13	0.37	0.45
IN/10W-34N 2 S 2-14-64	66	8.0	500	70	3.49	1.07	0.61	0.10	13	4	0	229	16	29.0	0.2
				66	20	66	1.07	0.10	15	3	0	3.75	10	0.45	0.47
7- 8-64	--	7.8	505	70	3.49	1.23	0.57	0.08	15	3	0	242	24	15	0.2
				65	23	65	1.23	0.08	11	1	0	3.97	74	0.50	0.42
8-10-64	--	8.0	500	51	2.54	2.22	0.61	0.10	27	4	0	238	25	15	0.2
				46	41	41	0.61	0.10	11	2	0	3.90	74	0.52	0.42
9-11-64	--	8.2	520	59	2.94	1.89	0.57	0.08	23	3	0	235	27	16	0.4
				54	34	10	0.57	0.08	10	1	0	3.85	72	0.45	0.48

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Specific conductance (macro-mhos at 25°C)	Mineral constituents in						Mineral constituents in						
				Calcium	Magnesium	Sodium	Potassium	Sulfur	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica
Date sampled				parts per million equivalents	parts per million percent	parts per million equivalents	parts per million percent	parts per million equivalents	parts per million percent	parts per million equivalents	parts per million percent	parts per million equivalents	parts per million percent	parts per million equivalents	parts per million percent	Total hardness as CaCO ₃
SAN GABRIEL VALLEY HYDRO SUBUNIT U0500 MAIN SAN GABRIEL HYDRO SUBAREA U0501																
IN/11W-21C 6 S 6-26-64	6.8	7.8	4.65	4.1 2.05 4.2	0.58 1.2 4.5	0.17 0.03 1	0	187	33	22	33.0	0.8	0.24	--	280	132
IN/11W-36R 1 S 8-17-64	--	7.7	--	4.6 2.30 4.8	1.56 0.83 3.3	1.9 0.83 1.7	4 0.10 2	62 0.54 72	62 0.54 11	14 0.26 11	0.62 0.26 6	0.13 0.11 11	--	--	280	242
UPPER CANYON HYDRO SUBAREA U0503																193
IN/10W-22M 1 S 10-10-63	6.1	8.2	4.45	6.2 3.09 5.8	1.1 0.90 1.7	2.8 0.90 1.7	4 0.10 2	230 3.77 72	50 1.04 20	13 0.37 7	5.8 0.37 2	0.2 0.09 2	0.09	12	302	200
6-24-64	6.0	8.0	500	5.1 2.54	20 1.64 4.7	2.6 1.13 3.0	4 0.10 2	242 3.97 74	4.7 0.98 18	10 0.28 5	7.0 0.2 2	0.2 0.08 --	--	--	299	320
IN/10W-22P 2 S 6-24-64	6.2	7.9	4.30	5.1 2.54 5.4	18 1.48 3.2	1.3 0.57 1.2	3 0.08 2	237 3.88 81	3.6 0.75 16	5 0.14 3	1.0 0.02 3	0.2 0.02 --	0.13	--	284	209
IN/10W-23B 1 S 8-10-64	8.6	8.5	694	6.5 3.24 4.3	20 1.64 2.2	4 0.10 34	0	239 3.92 51	121 2.52 33	41 1.16 15	3.2 0.05 1	--	--	--	244	264
IN/10W-23C 1 S 8-10-64	6.6	8.4	654	5.9 2.94 4.2	17 1.40 2.0	6.0 0.10 37	4 0.10 1	225 3.69 51	112 2.33 32	39 1.10 15	3.2 0.05 1	--	--	--	432	217

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity				Mineral constituents in parts per million							
				Magnesium	Sodium	Potassium	Chloride	Boron	Sulfate	Nitrate	Total hardness as CaCO ₃	Fluoride	Sulfur dioxide	TDS Evap 180°C Evap 105°C Computed	
Date sampled				Ca	K	Na	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SO ₂	
SAN GABRIEL VALLEY HYDRO SUBUNIT U05D0 UPPER CANYON HYDRO SUBAREA U05D3															
1N/10W-27C 1 S 8-10-64	63	8.4	392	54	11	10	4	0	224	5	0.0	--	--	--	180
				2.69	0.90	0.43	0.10	10	3.67	0.54	0.14				220
				65	22	10	2		84	12	3				
LA SAN GABRIEL RIVER HYDRO UNIT U0500															

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Mineral constituents in						Mineral constituents in										
			Specific conductance (micro-mhos at 25°C)	Calcium C.O.	Magnesium M.G.	Sodium N.A.	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron	Sulfur S	T.D.S. Evan's 105°C as CaCO ₃	Total hardness Evan's 105°C as CaCO ₃		
Date sampled	in F	in °C																	
SPADRA HYDRO SUBUNIT SPADRA HYDRO SUBAREA																			
1S/ 8W-7N 1 S	71	8.1	400	1.50	0.90	11	34	0.03	1	0	157	43	13	12.0	0.2	0.12	--	232	
6-23-64				38	1.48	38	38	0.03	1	2.57	0.90	0.37	0.19	5	22	120			
1S/ 8W-10N 1 S	68	7.9	310	1.45	0.08	1	35	2	0	148	17	11	4.0	0.2	0.08	--	221		
6-22-64				47	1.52	49	49	0.05	2	2.43	0.77	0.35	0.31	2	180	77			
1S/ 8W-16B 1 S	--	8.0	375	1.55	0.33	4	45	0.05	2	0	133	23	23	27.0	0.2	0.10	--	172	
6-22-64				60	1.96	50	50	0.05	1	2.18	0.48	0.48	0.65	12	234	94			
1S/ 9W-12R 1 S	72	7.9	400	1.80	0.66	8	41	1	0	161	51	16	12.0	0.2	0.12	--	221		
6-23-64				42	1.78	42	42	0.03	1	2.64	1.06	0.45	0.19	4	250	123			
1S/ 9W-26H 1 S	67	7.9	760	3.59	3.21	72	39	2	0	231	136	31	40.0	0.2	0.05	--	244		
6-25-64				44	4.26	40	40	0.05	1	3.79	2.83	0.87	0.65	8	340	536			
LIVE OAK HYDRO SUBUNIT LIVE OAK HYDRO SUBAREA																			
1S/ 8W-5A 1 S	63	7.8	820	4.39	2.96	88	36	1	0	164	131	39	133.0	0.4	0.05	--	463		
6-23-64				50	3.96	34	35	0.03	1	2.69	2.73	1.10	2.15	25	672	368			
1S/ 8W-15A 0 S	70	8.2	816	4.59	1.97	92	24	2	0	130	132	38	140.0	0	--	--	540		
8-18-64				57	1.43	57	18	0.05	1	2.13	2.75	1.07	2.26	28	328	525			

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				Parts per million equivalents per million percent reaction value				Mineral constituents in parts per million					
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	T.O.S. Evap 180°C	
Date sampled				K	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	F	B	SiO ₂	Calculated		
SPADRA HYDRO SUBUNIT																	
LIVE OAK HYDRO SUBAREA																	
1N/ 8W-34N 1 S	64	7.6	480	53	18	19	2	0	165	38	10	67.0	0.2	0.12	--	324	
6-22-64				2.64	1.48	0.83	0.05		2.70	0.79	0.28	1.08				206	
1N/ 8W-35J 1 S	64	8.2	430	30	30	17	1		56	16	6	22				288	
6-22-64				1.50	2.30	28	15		0	179	31	12	32.0	0.2	0.17	--	268
				33	51	14	1		0.65	2.93	0.65	0.34	0.52			190	
										66	15	8	12			238	
L A SAN GABRIEL RIVER HYDRO UNIT U0500																	
U05E0																	

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million reactivity value				Mineral constituents in parts per million			
				CaCO ₃	MgO	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silicate
Date sampled				No.	No.	No.	No.	HCO ₃	SO ₄	NO ₃	F	B	Si-O ₂	CaCO ₃	
ANAHEIM HYDRO SUBUNIT ANAHEIM HYDRO SUBAREA															
3S/10W-25L 1 S 4-14-64	68	7.7	1555	102 5.09	4.03 24	4.9 7.26	4 0.10	0	295 6.35	146 4.12	0.8 0.94	0.30	--	1063	456
3S/10W-32F 1 S 3-24-64	--	7.5	1040	1117 5.84	2.06 19	25 2.65	6.1 0.10	0	296 4.85	147 3.06	22 2.14	0.02	--	977	662
3S/10W-35K 1 S 4-17-64	--	7.9	81U	90 4.49	1.56 52	19 18	58 2.52	5 0.13	0 3.61	220 2.50	120 2.54	0.1 0.12	0.02	395	598
3S/10W-36H 1 S 3-30-64	--	7.8	696	--	--	--	--	0	246 4.03	76 1.054	49 1.38	0.18	25	556	303
66	7.7	701	--	--	--	--	--	0	236 3.87	80 1.67	54 1.52	--	--	--	523
9-23-64															
3S/11W-29H 1 S 7- 6-64	--	7.9	532	58 2.89	11 0.90	4.1 1.78	2 0.05	0	259 4.25	17 1.35	40 1.13	0.2	0.5	23	320
3S/11W-30P 2 S 7- 6-64	68	8.0	493	67 3.34	13 1.07	13 1.04	3 0.08	0	256 4.20	41 0.85	16 0.45	0.07	0.07	22	320
3S/11W-33Q 1 S 7-23-64	--	7.9	444	41 2.05	13 0.05	13 1.65	2 0.05	0	229 3.75	33 0.69	14 0.39	0.0	0.06	--	314
															294
															156
															254

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reductance						Mineral constituents in parts per million					
				Coccur-	Magne-	Potas-	Carbo-	Sulfate	Ni-	Fluo-	Boron	Sili-	Total	TDS	Total hardness
Date sampled				um	sium	sium	ate	bonate	ride	co		co	Exp 80°C	Exp 50°C	Calcd CaCO ₃
ANAHEIM HYDRO SUBUNIT ANAHEIM HYDRO SURAREA															
4S/ 9W- 4M 2 S 4- 6-64	--	7.0	1081	--	--	--	0	185	258	--	--	--	--	--	--
9-23-64	63	7.4	1105	--	--	--	0	161	294	94	--	--	--	--	--
4S/ 9W- 6G 2 S 9-23-64	--	7.4	1155	--	--	--	0	180	289	101	--	--	--	--	--
4S/ 10W- 1B 1 S 4-15-64	--	7.5	1093	109 5.44	24 1.97	4.13 1.7	0.13 35	0	153	302	96	2.9	0.08	0.03	23
9-23-64	67	7.6	1081	--	--	--	0	141	2.05	2.05	2.05	2.05	0.05	0.03	23
4S/ 10W- 1F 1 S 3-24-64	--	7.8	1287	119 5.94	24 1.97	82 3.57	0.13 0.13	0	193	271	96	18	0.6	0.09	18
4S/ 10W- 4R 5 S 3-24-64	--	7.7	1040	121 6.04	25 2.06	63 0.13	5 0.13	0	259	174	98	18	0.4	0.01	--
4S/ 10W- 6P 1 S 7- 3-64	66	7.9	630	75 3.074	17 1.40	42 1.83	3 0.08	0	246	77	43	8	0.4	0.12	--

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity						Mineral constituents in parts per million						
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silico-Egan (C)	TDS-Egan (C)
Date sampled	in °F	C.O.	M.Q.	No	K	HCO ₃	CO ₃	SO ₄	Cl	F	B	SiO ₂	SiO ₂ Computed	SiO ₂ Calcd		
ANAHEIM HYDRO SUBUNIT ANAHEIM HYDRO SUBAREA																
4S/10W-70 2 S	--	7.9	682	75	16	4.5	3	0	263	86	39	0	0.3	0.07	14	4.20
4-20-64				3.74	1.32	1.96	0.08	60	4.31	1.79	1.10	15				253
4S/10W-18C 2 S	--	7.7	833	102	19	4.8	4	0	270	96	71	22	0.4	0.06	--	4.08
4-16-64				5.09	1.56	2.09	0.10	50	4.43	2.00	2.35	4				543
4S/11W-4M 1 S	--	8.1	480	43	13	39	2	0	227	29	19	0.0	0.6	0		333
7-3-64				2.15	1.07	1.70	0.05	34	3.72	0.60	0.54	11				495
4S/11W-8B 2 S	--	8.2	490	34	15	45	2	0	226	39	15	0.0	0.4	0.10	--	26.8
7-3-64				1.70	1.23	1.96	0.05	40	3.70	0.81	0.42	9				161
4S/11W-8P 2 S	--	7.8	461	44	10	38	2	0	226	35	16	1.2	0.5	0.05	--	25.7
1-28-64				2.20	0.82	1.65	0.05	37	3.70	0.73	0.45	15				284
4S/11W-9A 1 S	--	8.1	480	46	12	40	2	0	237	35	14	0.0	0.4	0.08	--	147
7-3-64				2.30	0.99	1.74	0.05	34	3.88	0.33	0.39	15				262
4S/11W-12E 1 S	--	8.0	788	90	18	56	3	--	272	36	18	0.6	0.05	0.05	--	294
10-9-63				4.49	1.48	2.43	0.08	53	4.46	2.50	1.33	30				151
				17	29	1			54		16					230
																154
																26.8
																258
																278
																266
																230
																294
																299
																4.86

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity value						Mineral constituents in parts per million			
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride
Date sampled	C	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	F	B	SiO ₂	Total hardness as CaCO ₃	
ANAHEIM HYDRO SUBUNIT ANAHEIM HYDRO SUBAREA													
4S/11W-12E 1 S 6-19-64	--	7.8	840	9.1	4.54	1.48	1.8	5.8	0	279	132	5.2	0.0
				53	17	2.52	0.08	3	4.57	2.75	1.47	1.17	--
4S/11W-12F 2 S 12-10-63	--	7.7	658	7.6	3.79	1.07	1.3	3.7	0	239	77	3.8	10.0
				58	16	1.61	0.08	1	3.92	1.60	1.07	0.16	--
4S/11W-12R 1 S 1-28-64	--	7.6	865	10.5	5.24	1.64	2.0	4.3	0	269	118	6.0	22.0
				59	19	1.87	0.10	0	4.41	2.46	1.69	0.35	--
6-16-64	--	8.0	877	1.06	5.29	1.64	2.0	5.1	0	268	120	6.2	22.0
				57	18	2.22	0.13	5	4.39	2.50	1.75	0.35	--
7- 3-64	6.6	8.1	830	7.9	3.94	2.88	3.5	4.6	0	263	125	6.6	22.0
				44	32	2.00	0.10	4	4.31	2.60	1.86	0.35	--
4S/11W-12R 6 S 4-16-64	--	7.3	806	9.9	4.94	1.23	2.17	0.10	0	231	150	5.5	0.2
				59	15	2.6	1.17	1	3.79	3.12	1.55	0.16	--
4S/11W-15M 1 S 10- 9-63	25	8.0	438	--	--	--	--	--	44	44	36	18	2
									47	47	29	20	4
6-19-64	--	8.0	460	4.5	2.25	0.90	1.1	3.6	0.05	0	222	37	14
				4.7	19	1.57	0.05	2	3.64	3.77	0.39	0.39	--
						33	1		76	16	8		
LA SAN GABRIEL RIVER HYDRO UNIT U0500													
U05F1													
4S/11W-12E 1 S 6-19-64	--	7.8	840	9.1	4.54	1.48	1.8	5.8	0	279	132	5.2	0.0
				53	17	2.52	0.08	3	4.57	2.75	1.47	1.17	--
4S/11W-12F 2 S 12-10-63	--	7.7	658	7.6	3.79	1.07	1.3	3.7	0	239	77	3.8	10.0
				58	16	1.61	0.08	1	3.92	1.60	1.07	0.16	--
4S/11W-12R 1 S 1-28-64	--	7.6	865	10.5	5.24	1.64	2.0	4.3	0	269	118	6.0	22.0
				59	19	1.87	0.10	0	4.41	2.46	1.69	0.35	--
6-16-64	--	8.0	877	1.06	5.29	1.64	2.0	5.1	0	268	120	6.2	22.0
				57	18	2.22	0.13	5	4.39	2.50	1.75	0.35	--
7- 3-64	6.6	8.1	830	7.9	3.94	2.88	3.5	4.6	0	263	125	6.6	22.0
				44	32	2.00	0.10	4	4.31	2.60	1.86	0.35	--
4S/11W-12R 6 S 4-16-64	--	7.3	806	9.9	4.94	1.23	2.17	0.10	0	231	150	5.5	0.2
				59	15	2.6	1.17	1	3.79	3.12	1.55	0.16	--
4S/11W-15M 1 S 10- 9-63	25	8.0	438	--	--	--	--	--	44	44	36	18	2
									47	47	29	20	4
6-19-64	--	8.0	460	4.5	2.25	0.90	1.1	3.6	0.05	0	222	37	14
				4.7	19	1.57	0.05	2	3.64	3.77	0.39	0.39	--
						33	1		76	16	8		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction				Mineral constituents in parts per million										
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silicate	T D S - E q u i v o l e n t s	Total hardness E q u i v o l e n t s	Ca/C O ₃
Date sampled				M g	M g	N o	K	C O ₃	H C O ₃	S O ₄	C l	N O ₃	F	B	S i l - co	E q u i v o l e n t s	Computed	
ANAHEIM HYDRO SUBUNIT ANAHEIM HYDRO SUBAREA																		
4S/11W-16E 1 S 7- 3-64	--	7.8	4.70	46	16	39	2	0	245	31	17	0.0	0.04	0.10	--	284	181	
4S/11W-16J 4 S 3-2-64	--	7.8	6.60	3.32	1.32	1.70	0.05	4.02	0.65	0.48	9	0.01	0.05	0.05	--	272	257	
4S/11W-17P 6 S 4-17-64	--	7.7	4.55	80	14	38	3	0	275	68	39	0.6	0.5	0.05	--	396		
4S/11W-19J 1 S 10- 9-63	--	7.9	4.56	42	13	35	2	0	4.51	1.42	1.10	0.01	0.01	0.01	--	378		
4S/11W-19J 1 S 6-19-64	--	8.1	4.50	2.05	0.74	1.91	0.05	6.4	20	16	0.0	0.0	0.0	0.0	--	291	159	
4S/11W-19J 3 S 3-24-64	--	8.0	4.40	44	11	42	2	0	232	32	18	0.0	0.03	0.06	--	256		
4S/11W-20R 2 S 4-16-64	--	8.0	4.76	52	12	34	2	0	3.80	0.67	0.51	10	0.39	0.39	--	264	150	
4S/11W-21L 1 S 1-15-64	--	7.7	7.52	90	18	41	2	0	254	107	52	0.0	0.07	0.02	--	270	155	
				4.49	1.48	1.78	0.05	4.16	2.23	1.47	19	53	53	53	--	269	155	
				58	58	19										282	155	
																297	179	
																468	299	
																436		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity value						Mineral constituents in parts per million									
				Colloidal Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂				
ANAHEIM HYDRO SUBUNIT ANAHEIM HYDRO SUBAREA																			
4S/11W-29C 1 S 6-12-64	--	7.8	4.70	4.1	2.05	1.56	1.70	0.02	0	239	49	0.0	0.04	0.07	16	280	181		
4S/11W-30E 1 S 6-12-64	--	8.1	4.40	3.1	1.07	1.3	4.4	2	0	206	36	15	0.0	0.04	0.12	--	302	131	
4S/11W-30M 4 S 6-12-64	57	8.0	395	1.055	34	23	1.91	0.05	3.38	0.75	0.42	16	9	--	--	270	243	127	
4S/11W-31D 1 S 6-12-64	--	8.2	4.00	1.430	28	1.23	2.04	0.03	0	200	37	14	0.0	0.04	0.09	19	248	258	
4S/11W-31F 5 S 6-12-64	57	8.0	410	1.80	39	11	4.4	0.2	3.28	0.77	0.39	17	9	--	--	248	81	234	
4S/11W-31P 1 S 6-12-64	--	8.1	355	0.40	0.16	0.16	2.65	0.03	2.92	0.73	0.51	12	18	--	--	238	135	28	
4S/12W-36J 1 S 6-12-64	57	8.0	420	1.30	26	1.3	4.8	2	0	208	37	11	0.0	0.02	0.13	18	219	26.2	219
4S/12W-31A 3 S 6-11-64	--	8.8	338	0.30	0.16	0.16	2.46	0.05	3.41	0.77	0.31	17	7	--	--	26.2	119	259	
L A SAN GABRIEL RIVER HYDRO UNIT U0500																			
U05F0																			
U05F1																			

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos oh 25°C)	Mineral constituents in				parts per million equivalents per million percent reductance value				Mineral constituents in parts per million				
				Calcium C _o	Magnesium M _g	Sodium N _a	Potassium K	Carbonate C _O ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Sulfur S _o	
Date sampled																
ANAHEIM HYDRO SUBUNIT ANAHEIM HYDRO SUBAREA																
5S/12W-1B 1 S 6-11-64	--	7.9	450	4.00 2.00 40	1.2 0.99 20	4.6 2.00 40	0.2 0.05 1	0	216 3.54 73	4.0 0.83 17	1.8 0.51 10	0.0 0.02 0.14	0.0 0.02 16	280	150	
LA HARRA HYDRO SUBAREA																
3S/10W-4D 1 S 1- 8-64	25	7.6	1695	131 6.54 35	6.0 4.93 27	158 6.87 37	5 0.13 1	--	369 6.05 33	426 8.87 48	124 3.50 19	0.0 0.08 0.0	0.0 0.15 3.7	1112	574	
9-28-64	81	7.5	1588	--	--	--	--	0	350 5.74	-- 3.36	119 3.36	-- --	-- --	1123		
3S/10W-4D 2 S 1- 8-64	79	7.7	1613	111 5.54 33	4.9 4.03 24	164 7.13 42	5 0.13 1	--	323 5.29 32	387 8.06 48	118 3.33 20	0 0.9 0	0.18 4.0 0	479		
9-28-64	80	7.5	1680	131 6.54 34	5.7 4.69 25	175 7.61 40	6 0.15 1	0	329 5.39 29	484 10.08 54	115 3.24 17	0.0 1.0 0.0	0.37 33 33	1232	562	
3S/10W-7H 3 S 3-30-64	--	7.3	1564	--	--	--	--	0	283 4.64	-- 7.76	80.0 1.29	-- --	-- --	1164		
9-28-64	--	7.2	1540	--	--	--	--	0	279 4.57	-- 7.78	74.0 1.19	-- --	-- --	-- --		

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per milliliter reactance value						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfate	TDS	Total Evap (°C)
Date sampled				Na	Mg	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	S	O ₂		
ANAHEIM HYDRO SUBUNIT																	
LA HABRA HYDRO SUBAREA																	
35/10W-9H 1 S	--	7.5	1027	--	--	--	--	0	343	--	43	89.0	--	--	--	--	--
									5.62		1.21	1.44					
									5.43		1.33	1.60					
9-28-64	--	7.4	1059	--	--	--	--	0	331	--	47	99.0	--	--	--	--	--
35/10W-10M 1 S	--	7.7	968	--	--	--	--	0	275	--	102	41.0	--	--	--	--	--
									4.51		2.88	0.66					
9-28-64	--	7.6	950	--	--	--	--	0	260	--	103	43.0	--	--	--	--	--
									4.26		2.90	0.69					
35/10W-15B 1 S	--	7.6	1081	78	96	4	0	215	232	99	1.8	0.4	0.10	1.7	70.8	34.3	
				3.89	2.96	4.10	0	3.52	4.83	2.79	0.03						
				35	27	38	1	32	4.3	25							
9-28-64	--	7.5	1271	88	43	123	5	0	245	288	117	14.0	0.4	0.11	3.0	92.9	39.7
				4.39	3.54	5.35	0.13	4.02	6.00	3.30	0.23						
				33	26	40	1	30	4.4	24	2						
35/10W-16M 1 S	--	8.0	1037	82	28	102	4	0	151	286	84	0.0	0.4	0.13	8	69.0	32.0
				4.09	2.30	4.43	0.10	4.1	23	5.95	2.37						
				37	21	41	1		55	22							
9-28-64	--	7.5	1105	82	29	104	5	0	132	307	98	0.0	0.4	0.11	10	76.1	32.4
				4.09	2.38	4.52	0.13	4.1	21.16	6.39	2.76						
				37	21	41	1		56	24							

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in°F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	TDS	
Date sampled	Ca	Mg	No	K	CO ₂	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	SiO ₂	SiO ₂	Total hardness Evap 180°C Evap 105°C as CaCO ₃	Computed CaCO ₃	
ANAHEIM HYDRO SUBUNIT YORBA LINDA HYDRO SUBAREA																	
2S/ 8W-30N 1 S 7-21-64	--	7.8	1330	5.59	2.63	32	1	0	534	208	87	2.0	0.7	0.61	44	910	411
2S/ 9W-36A 3 S 7- 1-64	--	7.6	1387	8.6	5.8	158	6	0	495	239	100	8.5	0.6	0.10	30	918	453
3S/ 9W- 2P 1 S 3-24-64	--	8.2	6777	4.29	6.87	0.15	1	8.11	8.11	4.98	2.82	0.14	1	1	30	920	453
9-28-64	110	7.8	6558	--	--	--	0	3331	54.60	--	915	--	--	5.10	--	930	
9-28-64	--	7.7	1196	--	--	--	0	2087	50.60	--	915	0.0	--	--	--	--	
3S/ 9W-19B 2 S 3-24-64	--	7.5	1337	1.25	4.7	99	5	0	429	144	100	35	--	--	--	--	
9-28-64	--	7.5	6.24	3.87	4.30	0.13	1	7.03	3.00	3.41	2.82	0.56	--	--	--	--	
3S/ 9W-21D 1 S 3-24-64	--	7.9	1048	--	--	--	0	429	--	63	0	--	--	--	--	--	
9-28-64	--	7.8	1037	--	--	--	0	406	6.65	1.78	64	0.0	--	--	--	--	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per mill equivalent reactivity value				Mineral constituents in parts per million equivalents per mill equivalent reactivity value				Mineral constituents in parts per million equivalents per mill equivalent reactivity value				
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	TDS
Date sampled				CO ₃	K	Na	Ca	HCO ₃	SO ₄	Cl	F	B	SiO ₂			Calculated
ANAHEIM HYDRO SUBUNIT YORBA LINDA HYDRO SUBAREA																
3S/ 9W-21D 2 S 3-24-64	--	7.9	996	--	--	--	--	0	410	--	62	0.4	--	--	--	--
9-28-64	--	7.6	1027	--	--	--	--	0	406	--	62	0.0	--	--	--	--
3S/ 9W-21M 1 S 4-15-64	--	7.0	1495	--	--	--	--	0	356	--	209	97	--	--	--	--
9-28-64	--	7.4	1337	120 5.99	33 2.71	119 5.17	3 0.08	0	350	86	177	82.0	0.02	0.04	35	807
3S/ 9W-21M 2 S 4-15-64	--	7.6	959	--	--	37	1	5.74 4.19	1.79 13	13	36	4.99	1.32	0.04	35	827
9-28-64	71	7.9	941	--	--	--	--	0	405	--	70	0	--	--	--	--
3S/ 9W-22C 2 S 6-24-64	164	8.3	960	4.0 2.00	67 5.51	65 2.83	5 0.13	7	523	1.9	46	0	0.02	0.15	--	592
3S/ 9W-22C 3 S 6-24-64	132	7.9	1480	4.0 2.00	134 11.02	89 3.87	8 0.20	0	828	92	60	2.7	0.02	0.37	--	506
				1.12	64	23	1	13.57 23	1.92 79	11	10	1.69 0.04	0.04			960
																833

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents				parts per million equivalents per million percent reactivity				parts per million equivalents per million percent reactivity				Mineral constituents in parts per million			
				Calcium C o	Magnesium M g	Sodium N a	Potassium K	Boron B	Chloride C l	Sulfate S O ₄	Carbonate C O ₃	Nitrate N O ₃	Fluoride F	Boron B	Sulfur S	Total dissolved solids T.D.S. as CaCO ₃	Total hardness T.H.D. as CaCO ₃		
ANAHEIM HYDRO SUBUNIT YORBA LINDA HYDRO SUBAREA U05FF0 U05F3																			
3S/ 9W-22D 1 S 6-24-64	150	8.4	860	1.65	3.3	59	68	0.10	0.43	7.64	0.10	1.41	50	1	0.12	--	514		
3S/ 9W-28L 2 S 3-24-64	--	7.4	1303	--	1.7	4.85	2.96	0.10	0.43	80	1	15	0.02	--	--	4.62			
9-23-64	--	7.3	1303	--	--	--	--	--	0	342	--	265	--	--	--	--			
3S/ 9W-32H 3 S 4-15-64	--	7.6	1271	6.34	1.27	30	109	5	0	264	280	7.47	--	--	--	--			
9-23-64	--	7.6	1271	4.6	2.47	4.74	0.13	0.13	4.33	5.83	3.02	2.63	28	0.6	0.03	20			
3S/ 9W-32P 3 S 4-15-64	--	7.2	1081	--	--	--	--	0	231	301	110	7.42	3.10	0.45	0.03	20			
9-23-64	--	7.3	1105	--	--	--	--	0	187	251	97	--	--	--	--	--			
3S/ 9W-33H 1 S 3-24-64	--	7.8	916	--	--	--	--	0	3.06	5.23	2.74	--	--	--	--	--			

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Mineral constituents in			parts per million equivalents per percent reaction			Mineral constituents in parts per million					
			Specific conductance (micro-mhos at 25°C)	Ca/cium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron
Date sampled						CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	SiO ₂	TDS	Total hardness as CaCO ₃
ANAHEIM HYDRO SUBUNIT														
YORBA LINDA HYDRO SUBAREA														
3S / 9W-33K 1 S 4-15-64	--	7.3	1048	--	--	--	--	0	210	237	92	--	--	--
3S / 9W-34G 1 S 4- 6-64	--	7.8	900	--	--	--	--	0	275	113	87	--	--	--
3S / 9W-34H 1 S 4- 6-64	--	7.8	900	--	--	--	--	0	4.51	2.35	2.45	--	--	--
3S / 9W-34M 1 S 3-24-64	--	7.6	1225	--	--	--	--	0	274	--	74	--	--	--
3S / 9W-350 1 S 4- 6-64	--	7.8	1117	90	25	109	4	0	238	293	99	--	--	--
			4.49	39	2.06	4.74	0.10		3.90	6.10	2.79			
						4.2	18		1	2.69	6.14	2.65	0.04	
										2.23	5.53			
												0.10	14	328
													733	715

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity value						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fuoride	Boron	Sulfur	TDS	Total dissolved solids
Date sampled				Ca	Mg	Na	K	HCO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	S	O ₂	Compared
LONG HYDRO SUBUNIT																	
W03AC																	
OWENS HYDRO UNIT																	
W03AO																	
3S/28E-33P 1 M 10-21-63	--	6.5	320	20 1.00 31	4 0.33 10	40 1.74 54	7 0.18 6	0 1.92 60	117 1.92 11	33 0.93 29	0.0 0.0 36	1.66 1.43 61	6.0 2.40	262 240	6.7		
11- 4-63	--	7.3	350	15 0.75 22	8 1.78 53	41 0.18 5	7 0 59	120 1.97 59	1.6 0.33 10	0.0 1.02 31	0.0 0.0 31	1.43 1.48 65	6.1 24.5	256 276	7.1		
12-10-63	--	7.3	360	17 0.85 23	8 0.66 18	44 1.91 53	8 0.20 6	0 124 59	1.9 1.04 12	0.0 1.04 30	0.0 0.0 30	1.48 1.48 65	6.5 276	261 76			
1-13-64	--	7.3	330	16 0.80 21	7 0.58 16	45 1.96 56	7 0.18 5	0 128 59	1.6 4.0 9	0.0 1.13 32	0.0 1.13 32	1.53 1.53 71	7.1 278	6.4			
2- 3-64	--	6.8	348	16 0.80 23	6 0.49 14	46 2.00 58	7 0.18 5	0 121 57	2.3 1.98 14	0.0 1.04 30	0.0 1.04 30	1.45 1.45 72	7.2 256	6.5			
3-29-64	--	7.0	315	14 0.70	7 0.58 22	40 1.74 18	6 0.15 5	0 117 59	1.8 1.92 11	0.0 0.37 30	0.0 0.6 30	1.44 1.44 63	6.3 26.3	25.5 26.3			
4-25-64	--	7.1	400	31 1.055 1.37	9 0.74 17	40 1.74 41	8 0.20 5	0 175 67	1.9 0.40 9	0.0 1.02 24	0.0 0.0 24	1.44 1.44 63	6.2 300	11.1			
5-11-64	--	8.0	350	27 1.25 34	8 0.66 17	41 1.78 45	7 0.18 5	0 153 63	1.9 0.40 10	0.0 1.10 27	0.0 0.0 27	1.28 1.28 21.0	6.1 25.6 21.0				

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million							
			Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	TDS	Total hardness
Date sampled	pH	CO ₂	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	F	B	SiO ₂	Eq. 80°C	Eq. 65°C	CaCO ₃	
LONG HYDRO SUBUNIT																
35/28E-34R 1 M 10-21-63	--	7.7	205	0.65 30	0.41 19	1.00 46	0.13 6	5 0	110 1.80	10 0.21	5 0.14	0.0 0.02	0.31 4.6	166 16.6	53 162	
11- 4-63	--	8.1	210	0.55 24	0.58 26	1.00 44	0.13 6	7 0	114 1.87	8 0.17	5 0.14	0.0 0.02	0.24 0.24	--	166 57	
11-19- '3	--	7.8	220	0.50 22	0.66 29	1.00 44	0.13 6	8 0	117 1.92	9 0.19	4 0.11	0.0 0.02	0.26 0.26	--	166 58	
12-10-63	--	7.2	215	0.55 24	0.58 26	1.00 44	0.13 6	7 0	118 1.93	7 0.15	4 0.11	0.0 0.02	0.26 4.5	170 17.0	57 117	
1-13-64	--	7.2	210	0.60 28	0.41 19	1.00 47	0.13 6	5 0	116 1.90	6 0.12	4 0.11	0.0 0.04	0.27 4.7	140 14.0	51 160	
2- 3-64	--	7.6	220	1.00 40	0.33 13	1.04 42	0.13 5	4 0	129 2.11	8 0.17	5 0.14	0.0 0.02	0.33 4.7	162 17.7	67 17.7	
3-29-64	--	7.9	224	0.60 26	0.58 25	1.00 44	0.10 4	7 0	126 2.07	7 0.15	5 0.14	0.0 0.01	0.33 4.3	138 13.8	59 13.8	
5-11-64	--	7.7	225	0.65 27	0.58 24	1.04 43	0.13 5	7 0	111 1.82	12 0.25	11 0.31	0.0 0.02	0.33 --	144 12.7	62 12.7	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963 /64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in°F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity value				Mineral constituents in parts per million											
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfur	TDS	Evd 80°C	Evd 105°C	Total hardness
Date sampled				CO ₃	Mg	Na	K	HCO ₃	SO ₄	Cl	NO ₃	F	SiO ₂						
VALJEAN HYDRO SUBUNIT																			
18N / 7E - 300 1 S	5 - 4-64	7	8.2	12400	263	187	2600	65	0	588	1105	3883	0.0	9.0	4.30	27	8018	1426	
					13.12	15.38	113.05	1.66	0	9.64	23.01	105.50					8432		
					9	11	79	1		7	16	77							
SHADOW HYDRO SUBAREA																			
15N / 12E - 16H 1 S	5 - 6-64	7U	8.3	560	1.2	8	116	4	5	248	4.3	30	14.0	1.8	0.40	35	400	63	
					0.60	0.66	5.04	0.10	0.17	4.06	0.70	0.85	0.23				391		
					9	10	79	2	3	65	14	14	4						
AMARGOSA HYDRO UNIT																			
16N / 12E - 26N 1 S	5 - 6-64	—	8.1	1260	117	75	74	5	0	159	54.9	39	0.0	0.6	0.25	23	1076	601	
					5.84	6.17	3.22	0.13	2.1	17	2.61	11.43	1.10						
					38	40	21	1		17	75	7					961		
VALJEAN HYDRO SUBUNIT																			
16N / 12E - 280 2 S	5 - 6-64	7U	7.9	820	49	35	93	4	0	201	204	66	3.3	1.0	0.26	26	602	267	
					2.45	2.88	4.04	0.10	3.29	35	45	20	1.86	0.05			580		
					26	30	43	1											

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million								
			Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Silicate	T.D.S.	Total hardness as CaCO ₃		
Date sampled			Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	F	B			Evap 105°C	Computed		
AMARGOSA HYDRO SUBUNIT																	
22N/7E-30E 1 S 5 - 4-64	90	8.4	1480	35	3.2	260	21	16	355	244	156	0.0	1.8	3.90	36	954	219
				1.75	2.63	11.30	0.54	0.53	5.82	5.08	4.40						
				1.1	1.6	70	3	3	37	32	28						
AMARGOSA HYDRO UNIT																	
W0900																	
AMARGOSA HYDRO SUBAREA																	
W0902																	
AMARGOSA HYDRO SUBUNIT																	
W0902																	
AMARGOSA HYDRO SUBAREA																	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled	pH	Mineral constituents in parts per million equivalents per percent reactivity						Mineral constituents in parts per million								
			Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silicate			
Date sampled			C o	M g	N a	K	C O ₃	H C O ₃	S O ₄	F	B	E v o p 60°C					
PAHRUMP HYDRO UNIT																	
21N/10E-3M 1 S 5-4-64	--	7.4	570	45	31	24	2	0	189	103	12	0.4	0.14	22	398	240	
			2.25	2.55	1.04	0.05	3.10	2.14	0.34	0.19	0.19						
			38	43	18	1	54	37	6	3						344	
																356	
22N/10E-34A 2 S 5-4-64	7.0	8.0	500	48	24	29	2	0	234	70	7	1.2	0.4	0.10	28	356	219
			2.40	1.97	1.26	0.05	3.84	1.46	0.20	0.02	0.02						325
			42	35	22	1	70	26	4								
																316	195
20S/52E-35A 1 M 5-4-64	--	8.0	480	32	28	36	10	0	278	38	12	0.0	0.02	0.18	15	308	
			1.60	2.34	1.57	0.26	4.56	0.56	0.79	0.34							
			28	40	27	5	80	14	6								
20S/52E-35A 2 M 5-4-64	--	8.0	470	36	38	14	5	0	262	37	16	0.0	0.02	0.06	25	292	247
			1.80	3.13	0.61	0.13	4.29	0.77	0.45	0.14	8					300	
			32	55	11	2	78										

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity value						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Total hardness	Ecological
Date sampled				CO ₃	Mg	K	Na	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	CaCO ₃	Compound
19N/12E-14C 1 S 5- 5-64	67	7.9	7500	194 9.68	204 16.78	1525 66.31	45 1.15	0 2.77	169 12.76	613 78.31	277 83	0.8 0.01	0.20	33	5462	1324	
19N/12E-14D 2 S 5- 5-64	68	8.0	1300	126 6.29	112 9.21	48 2.09	3 0.08	0 3.98	243 12.22	587 1.47	52 0.16	0.6 0.16	0.46	49	5475	1200	
19N/12E-26H 1 S 5- 5-64	70	7.8	1140	60 2.99	45 3.70	126 5.48	7 0.18	0 4.4	249 33	207 34	146 33	0.0 4.12	0.40	21	740	335	
19N/13E-19P 1 S 5- 5-64	66	8.1	2500	20 1.00	26 2.14	500 1.36	53 1.36	0 1.36	293 4.80	224 4.66	585 16.50	0.0 1.0	0.18	47	736	1526	
25S/57E-5G 1 M 5- 5-64	--	8.1	725	81 4.04	35 2.88	38 1.65	2 0.05	0 1.9	275 51	171 3.56	26 0.79	1.7 0.03	0.2	17	157	1600	

WILLOW

MESQUITE HYDRO UNIT

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity value						Mineral constituents in parts per million						
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Total hardness
Date sampled				CO ₃	Mg	K	Na	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	SiO ₂	CaCO ₃	Compound
19N/12E-14C 1 S 5- 5-64	67	7.9	7500	194 9.68	204 16.78	1525 66.31	45 1.15	0 2.77	169 12.76	613 78.31	277 83	0.8 0.01	0.20	33	5462	1324
19N/12E-14D 2 S 5- 5-64	68	8.0	1300	126 6.29	112 9.21	48 2.09	3 0.08	0 3.98	243 12.22	587 1.47	52 0.16	0.6 0.16	0.46	49	5475	1200
19N/12E-26H 1 S 5- 5-64	70	7.8	1140	60 2.99	45 3.70	126 5.48	7 0.18	0 4.4	249 33	207 34	146 33	0.0 4.12	0.40	21	740	335
19N/13E-19P 1 S 5- 5-64	66	8.1	2500	20 1.00	26 2.14	500 1.36	53 1.36	0 1.36	293 4.80	224 4.66	585 16.50	0.0 1.0	0.18	47	736	1526
25S/57E-5G 1 M 5- 5-64	--	8.1	725	81 4.04	35 2.88	38 1.65	2 0.05	0 1.9	275 51	171 3.56	26 0.79	1.7 0.03	0.2	17	157	1600

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per cent reactivity				Mineral constituents in parts per million								
				Calcium C.O.	Magnesium M.G.	Sodium N.A.	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	
IVANPAH HYDRO UNIT																
27S/59E- 8P 1 M 5- 6-64	--	8.2	3700	18 0.90	0 2	0 36.52	6 0.15	0 97	246 4.03	217 4.52	1039 29.30	4.5 0.07	3.0 0.12	1.60 77	11 2228	4.5 2261
14N/13E-13H 1 S 5- 6-64	8.2	400	32 1.60	10 0.82	40 1.74	1 0.03	1 4.2	0 1	165 2.70	25 0.52	32 0.90	0.0 0.2	0.0 0.22	0.10 22	10 232	121 231
14N/16E-22M 1 S 5- 7-64	--	7.7	2400	78 6.41	227 9.87	6 0.15	0 1.61	0 1.61	98 24.80	1191 5.30	188 5.30	0.0 1.7	1.0 17	0.48 19	19 2146	1057 2054
15N/15E-56J 1 S*	--	7.9	860	9 1.85	150 0.74	8 6.52	0 0.20	0 7.0	116 1.90	78 1.62	1.6 5.53	4.5 0.07	1.4 1	0.20 61	21 552	130 562
16N/15E-12Q 1 S 5- 6-64	--	8.0	630	18 1.15	86 1.48	5 3.74	0 0.13	0 2.57	157 0.83	40 2.82	11.0 0.18	0.8 0.3	0.8 4.4	23 3	23 372	132 384
16N/16E-33M 1 S 5- 6-64	--	8.5	490	0 0.40	0 8	0 4.52	2 0.05	8 0.5	104 0.27	117 1.92	39 0.81	12.0 1.78	1.6 0.19	0.28 4	21 36	20 316

*Well 15N/15E-56J1 is 15½N/15E-20J1. Number was modified for machine data processing.

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	T.D.S.	Total hardness
Date sampled				CO ₃	HCO ₃	CO ₃	HCO ₃	Na	K	F	B	SiO ₂	B	SO ₂	Computed	Evap. loss at 105°C	CaCO ₃
COYOTE HYDRO UNIT																	
WI80C																	
12N / 2E - 32G 1 S 4-29-64	67	8.0	1220	38 1.94 14	0.49 4	6 10.65 81	0.08 1	245 10.65 81	3 0.08 1	0 1.87 14	114 5.45 14	262 5.72 4.4	203 0.0	2.0	0.32	28	84.8 844

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity						Mineral constituents in parts per million									
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	TDS	Total dissolved solids		
Date sampled	in F														B	SiO_2	Computed CaCO_3		
ANTELOPE HYDRO SUBUNIT		NEENACH HYDRO SUBAREA		W26A0		W26A4		W2600		ANTELOPE HYDRO UNIT									
8N/14W-6E 1 S	--	7.3	307	20	8	38	1	0	144	22	18	1.0	0.7	0.50	28	200	83		
8N/15W-11UP 1 S	--	7.9	370	1.00	0.66	1.65	0.03	2.36	0.46	0.51	0.02	1	14	0.15	1	208	258	109	
8N/15W-11UP 1 S	--	7.9	370	3.0	20	49	1	70	14	15	20.0	0.6	0.11	32	32	258	259	109	
8N/15W-33G 2 S	--	7.7	350	1.85	0.33	1.78	0.05	--	160	29	15	0.42	0.32	11	8	11.0	0.4	138	
8N/15W-33G 2 S	--	7.7	350	4.6	8	44	1	66	15	11	0.32	0.32	11	8	11.0	0.4	21	228	138
8N/16W-60 1 S	--	7.8	450	2.10	0.66	8	24	0	199	12	4	0.18	0.18	5	5	0.05	21	222	
8N/16W-60 1 S	--	7.8	450	5.5	17	27	1	86	7	3	5	0.11	0.11	5	5	0.05	21	222	
LANCASTER VALLEY HYDRO SUBAREA		W26A5		W26A0		W2600		W2600		LANCASTER VALLEY HYDRO SUBAREA									
6N/10W-5H 1 S	--	8.2	360	4.8	11	19	3	0	192	43	5	0.9	0.2	0.09	18	226	165		
6N/10W-5H 1 S	--	8.2	360	2.40	0.90	0.83	0.08	3.15	0.90	0.14	0.01	3	21	3	3	24.3	24.3	86	
6N/11W-1B 1 S	--	7.7	301	5.7	21	20	2	75	21	20	1.0	0.2	0	0	--	177	177	86	
6N/11W-1B 1 S	--	7.7	301	1.30	0.41	1.22	0.05	0	120	23	20	0.56	0.02	1	1	1	164	164	86
6N/11W-21N 1 S	--	7.8	300	4.4	14	41	2	65	16	18	1.0	0.2	0.05	19	19	184	184	103	
6N/11W-21N 1 S	--	7.8	300	3.3	5	24	2	0	145	24	7	2.6	0.2	0.05	19	19	184	184	103
6N/11W-21N 1 S	--	7.8	300	1.65	0.41	1.04	0.05	2.38	0.50	16	0.20	0.04	1	6	6	6	188	188	103
6N/11W-21N 1 S	--	7.8	300	5.2	13	33	2	76	16	16	0.20	0.04	1	6	6	6	188	188	103

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents				parts per million equivalents				parts per million reactants				Mineral constituents in parts per million			
				Calcium C _o	Magnesium M _g	Sodium N _a	Potassium K	Carbon dioxide C _O 3	Carbon monoxide HCO ₃	Bicarbonate C _O 3	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Sulfur S _o	TDS Total Equiv. 180°C Equiv. 105°C Computed CaCO ₃	Sulfur S _o	TDS Total Equiv. 180°C Equiv. 105°C Computed CaCO ₃
ANTELOPE HYDRO SUBUNIT LANCASTER VALLEY HYDRO SUBAREA																			
6N/12W-8R 1 S 3-31-64	--	7.9	4.09	1.00	0.49	2.0	6	5.8	0.08	0	153	43	25	1.5	0.5	0	--	243	75
7N/9W-30F 1 S 3-25-64	--	8.0	3.85	2.10	0.66	4.2	8	3.7	0.08	2.52	0.90	0.71	0.02	0.02	0	0	232	232	
7N/10W-6R 1 S 3-25-64	--	8.0	300	1.65	0.16	3.3	2	1.61	0.08	1.61	1.27	0.20	0.01	0.01	0.04	0.04	264	138	
7N/12W-7B 2 S 3-31-64	--	7.8	416	1.95	0.66	3.9	8	4.0	1	0	176	6.1	7	0.8	0.14	21	267	267	
7N/12W-34J 1 S 3-27-64	--	8.0	250	1.49	0.15	1.49	5	4.5	1	3.5	2.88	2.9	5	0.0	0.0	0.0	198	91	
7N/13W-7J 1 S 5-4-64	--	7.8	650	6.4	3.19	6.4	1	4.1	1	0	146	3.8	4	0.0	0.09	18	204	204	
7N/13W-35E 1 S 3-27-64	--	7.5	585	1.70	0.08	3.4	2	1.78	0.03	2.17	2.39	0.79	0.11	0.11	0.14	0.14	262	131	
7N/14W-10 1 S 5-4-64	74	8.0	370	1.80	0.74	3.6	9	4.17	0.03	1.61	2.02	0.33	0.11	0.03	0.32	0.32	234	234	
				4.6	1.9	2.55	31	6.9	1	0	188	20	23	10.0	0.4	0.32	0.32	182	39
				40	32	40	3	6.9	1	0.03	3.08	0.42	0.65	0.16	0.16	0.16	0.16	158	158
				40	32	40	3	6.9	1	0.03	7.1	10	15	4	1.7	0.2	0.11	19	460
				40	32	40	3	6.9	1	0.03	123	1.6	4	0.03	0.03	0.03	0.03	444	287
				40	32	40	3	6.9	1	0.03	337	3.2	42	29.0	0.1	0.12	0.12	332	73
				40	32	40	3	6.9	1	0.03	5.52	0.67	1.18	0.47	0.47	0.47	0.47	379	379
				40	32	40	3	6.9	1	0.03	70	9	15	6	6	6	6	254	127
				40	32	40	3	6.9	1	0.03	142	7.5	6.1	22.0	0.4	0.16	0.16	18	248
				40	32	40	3	6.9	1	0.03	2.33	1.56	1.72	0.35	0.35	0.35	0.35	35	248
				40	32	40	3	6.9	1	0.03	39	26	29	6	6	6	6	254	127
				40	32	40	3	6.9	1	0.03	160	1.9	17	20.0	0.2	0.08	0.08	19	75
				40	32	40	3	6.9	1	0.03	2.62	0.40	0.48	0.32	0.32	0.32	0.32	19	75
				40	32	40	3	6.9	1	0.03	6.9	10	13	8	8	8	8	19	75

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaclance value								Mineral constituents in parts per million						
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silicate	TDS	Evap 180°C	Total hardness
Date sampled				Mg	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	S	SiO ₂	CO	CaCO ₃ Computed
ANTELOPE HYDRO SUBUNIT LANCASTER VALLEY HYDRO SUBAREA W26A5																		
7N/14W-10F 1 S	--	7.9	320	34	2	35	0	153	7	13	19.0	0.2	0.07	24	214	93		
3-26-64				1.70	0.16	1.52	0.05	2.51	0.15	0.37	0.31							
8N/12W-21C 1 S	--	8.0	350	25	4	51	1	75	4	11	9							
3-25-64				1.25	0.33	2.22	0.03	0.13	2.4	32	7.0	0.6	0.33	23	211			
8N/12W-34P 2 S	--	7.5	260	33	4	23	1	0	2.18	0.50	0.90	0.11						
3-26-64				1.65	0.33	1.00	0.03	0.59	14	24	3							
8N/13W-23M 3 S	--	7.9	450	38	5	54	2	0	159	43	3.5							
3-25-64				1.90	0.41	2.35	0.05	2.61	0.90	0.99	0.12							
8N/13W-32N 1 S	--	8.1	600	53	19	62	2	0	56	19	21	3						
3-26-64				2.64	1.56	2.70	0.05	4.26	0.79	1.47	0.37							
BUTTES HYDRO SUBAREA W26A7																		
6N/11W-130 1 S	--	7.9	407	43	12	27	2	0	176	4.8	11	0.0	0.6	0.13	--			
5-14-64				2.15	0.99	1.17	0.05	2.88	1.00	0.31								
6N/11W-36G 1 S	--	7.9	241	27	6	15	2	0	69	24	7							
3-31-64				1.35	0.49	0.65	0.05	1.24	1.4	1.4	0.1	0.02	0.17					
				1.53	1.19	26	2	2.03	0.29	0.12	7							
								81										

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaaction				Mineral constituents in parts per million				T.D.S. Exp. 180° C Exp. 105° C Computed	
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	
Date sampled	Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	SiO ₂	B	CaCO ₃
ANTELOPE HYDRO SUBUNIT													
ROCK CREEK HYDRO SUBAREA													
4N/10W-14E 1 S 10-21-63	65	8.0	550	42	1.8	45	0.05	2	0	232	58	14	2.0 0.04
			2-10	1.48	26	1.96	0.05	1	3.80	1.21	0.39	1	3.11
			38			35			70	22	7		
5N/ 9W-25A 1 S 5-14-64	--	8.04	416	27	1.2	4.2	4	6	157	57	11	1.0 0.02	--
			1-35	0.99	23	1.83	0.10	2	2.57	1.19	0.31	0	266
			32			4.3			60	28	7		117
5N/11W-9A 2 S 3-27-64	--	7.6	296	35	6	22	2	0	154	26	7	1.5 0.02	238
			1-75	0.49	30	0.96	0.05	2	2.52	0.54	0.20	1	
			54			30			77	16	6		
6N/ 8W-23M 1 S 3-25-64	--	7.5	500	40	1.0	60	5	0	103	185	0	0.0 0.04	190
			2-00	0.82	2-61	0.13	0	1-69	3-85	0		0.07	112
			36	15	47	2		31	69				
6N/ 8W-30G 1 S 4- 6-64	--	7.9	415	28	7	49	3	0	126	89	9	3.2 0.05	203
			1-40	0.58	14	2.13	0.08	2	2.07	1.85	0.25	1	
			33			51			4.9	44	6		
6N/ 8W-35F 2 S 3-24-64	--	7.9	425	30	7	56	4	0	106	130	5	2.2 0.04	250
			1-50	0.58	13	2.43	0.10	2	1.74	2.71	0.14	1	
			33			53			38	59	3		
6N/ 9W-13A 1 S 5-14-64	--	7.9	564	44	12	60	3	0	126	158	11	2.5 0.04	303
			2-20	0.99	37	2.61	0.08	1	2.07	3.29	0.31	0	365
			37	17	44				36	58	5		160
6N/ 9W-28K 1 S 2-12-64	79	7.5	503	25	4	76	1	0	115	116	19	0.0 0.54	353
			1-25	0.33	25	3.30	0.03	1	1.88	2.42	50	11	
			25	7	67				39				
ANTELOPE HYDRO UNIT													
W26A0													
4N/10W-14E 1 S 10-21-63	65	8.0	550	42	1.8	45	0.05	2	0	232	58	14	3.24
			2-10	1.48	26	1.96	0.05	1	3.80	1.21	0.39	1	179
			38			35			70	22	7		
5N/ 9W-25A 1 S 5-14-64	--	8.04	416	27	1.2	4.2	4	6	157	57	11	1.0 0.02	--
			1-35	0.99	23	1.83	0.10	2	2.57	1.19	0.31	0	266
			32			4.3			60	28	7		117
5N/11W-9A 2 S 3-27-64	--	7.6	296	35	6	22	2	0	154	26	7	1.5 0.02	238
			1-75	0.49	30	0.96	0.05	2	2.52	0.54	0.20	1	
			54			30			77	16	6		
6N/ 8W-23M 1 S 3-25-64	--	7.5	500	40	1.0	60	5	0	103	185	0	0.0 0.04	190
			2-00	0.82	2-61	0.13	0	1-69	3-85	0		0.07	141
			36	15	47	2		31	69				366
6N/ 8W-30G 1 S 4- 6-64	--	7.9	415	28	7	49	3	0	126	89	9	3.2 0.03	--
			1-40	0.58	14	2.13	0.08	2	2.07	1.85	0.25	1	263
			33			51			4.9	44	6		99
6N/ 8W-35F 2 S 3-24-64	--	7.9	425	30	7	56	4	0	106	130	5	2.2 0.04	250
			1-50	0.58	13	2.43	0.10	2	1.74	2.71	0.14	1	
			33			53			38	59	3		
6N/ 9W-13A 1 S 5-14-64	--	7.9	564	44	12	60	3	0	126	158	11	2.5 0.04	303
			2-20	0.99	37	2.61	0.08	1	2.07	3.29	0.31	0	365
			37	17	44				36	58	5		160
6N/ 9W-28K 1 S 2-12-64	79	7.5	503	25	4	76	1	0	115	116	19	0.0 0.54	353
			1-25	0.33	25	3.30	0.03	1	1.88	2.42	50	11	
			25	7	67				39				
W2600													
4N/10W-14E 1 S 10-21-63	65	8.0	550	42	1.8	45	0.05	2	0	232	58	14	3.24
			2-10	1.48	26	1.96	0.05	1	3.80	1.21	0.39	1	179
			38			35			70	22	7		
5N/ 9W-25A 1 S 5-14-64	--	8.04	416	27	1.2	4.2	4	6	157	57	11	1.0 0.02	--
			1-35	0.99	23	1.83	0.10	2	2.57	1.19	0.31	0	266
			32			4.3			60	28	7		117
5N/11W-9A 2 S 3-27-64	--	7.6	296	35	6	22	2	0	154	26	7	1.5 0.02	238
			1-75	0.49	30	0.96	0.05	2	2.52	0.54	0.20	1	
			54			30			77	16	6		
6N/ 8W-23M 1 S 3-25-64	--	7.5	500	40	1.0	60	5	0	103	185	0	0.0 0.04	190
			2-00	0.82	2-61	0.13	0	1-69	3-85	0		0.07	112
			36	15	47	2		31	69				
6N/ 8W-30G 1 S 4- 6-64	--	7.9	415	28	7	49	3	0	126	89	9	3.2 0.03	--
			1-40	0.58	14	2.13	0.08	2	2.07	1.85	0.25	1	263
			33			51			4.9	44	6		99
6N/ 8W-35F 2 S 3-24-64	--	7.9	425	30	7	56	4	0	106	130	5	2.2 0.04	250
			1-50	0.58	13	2.43	0.10	2	1.74	2.71	0.14	1	
			33			53			38	59	3		
6N/ 9W-13A 1 S 5-14-64	--	7.9	564	44	12	60	3	0	126	158	11	2.5 0.04	303
			2-20	0.99	37	2.61	0.08	1	2.07	3.29	0.31	0	365
			37	17	44				36	58	5		160
6N/ 9W-28K 1 S 2-12-64	79	7.5	503	25	4	76	1	0	115	116	19	0.0 0.54	353
			1-25	0.33	25	3.30	0.03	1	1.88	2.42	50	11	
			25	7	67				39				

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Chloride	Sulfate	Nitrate	Boron	Sulfur	T.D.S.	Total solids	Chlorides	Sulfates	Carbonates
Date sampled				Mg	Mg	Na	K	HCO ₃	CO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	CaCO ₃	
ANTELOPE HYDRO UNIT																	
ROCK CREEK HYDRO SUBUNIT				W26A0	W26A8												
6N/ 9W-29E 1 S 2-12-64	70	7.3	387	4.1 2.05	1.23 5.0	15 30	17 18	0.08 2	0 71	1.76 2.88	4.4 0.23	8 6	0.0 0.23	0.05 0.10	--	245 215	164
6N/ 9W-30A 1 S 5-14-64	--	8.3	425	4.2 2.10	1.2 0.99	28 23	3 2	0 0.08	0 2.80	1.71 1.37	6.6 0.23	6 5	0.0 0.04	0.10 0.10	--	262 244	155

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million reioncne				Mineral constituents in parts per million											
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fuoride	Boron	Sulfur dioxide	Total hardness	TDS	Equiv 80°C	Equiv 105°C
Date sampled				Mg	Mg	No	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	B	F	SiO ₂				
EL MIRAGE HYDRO SUBUNIT																			
W28AO																			
3N / 7W-9M 1 S	--	7.6	5.95	8.7	2.06	0.48	0.13	5	0	354	5.6	0.3	0.6	0.01	--	344	320		
1-29-64			4.34	6.2	2.29	0.7	2	82	1.17	0.14	2								
9- 8-64	--	7.7	6.05	8.5	2.7	9	4	0	326	6.3	4	0.8	0.5	0.01	--	354	323		
9- 8-64	--	7.7	4.24	6.1	2.22	0.39	0.10	6	5.34	1.31	2	0.11	0.01						
6N / 7W-11R 1 S	--	8.9	5.07	2	1	1.13	0.1	17	76	145	4	0.0	1.3	0.14	--	302	9		
1-29-64			0.10	0.08	4.91	0.03	0.57	1.25	3.02	0.11									
9- 8-64	--	8.9	5.29	1	2	96	1	12	25	61	2								
9- 8-64	--	8.9	0.05	0.16	4.70	0.03	0.17	1	83	157	4	0.3	1.1	0.13	--	321	11		
6N / 7W-19E 1 S	--	7.8	5.35	4.6	1.1	5.6	0	1.36	3.27	0.11	2								
1-29-64			2.30	0.90	2.43	0.13	4.2	1	28	67	2								
MOJAVE HYDRO UNIT																			
W2800																			
3N / 7W-9M 1 S	--	7.6	5.95	8.7	2.06	0.48	0.13	5	0	354	5.6	0.3	0.6	0.01	--	344	320		
1-29-64			4.34	6.2	2.29	0.7	2	82	1.17	0.14	2								
9- 8-64	--	7.7	6.05	8.5	2.7	9	4	0	326	6.3	4	0.8	0.5	0.01	--	354	323		
9- 8-64	--	7.7	4.24	6.1	2.22	0.39	0.10	6	5.34	1.31	2	0.11	0.01						
6N / 7W-11R 1 S	--	8.9	5.07	2	1	1.13	0.1	17	76	145	4	0.0	1.3	0.14	--	302	9		
1-29-64			0.10	0.08	4.91	0.03	0.57	1.25	3.02	0.11									
9- 8-64	--	8.9	5.29	1	2	96	1	12	25	61	2								
9- 8-64	--	8.9	0.05	0.16	4.70	0.03	0.17	1	83	157	4	0.3	1.1	0.13	--	321	11		
6N / 7W-19E 1 S	--	7.8	5.35	4.6	1.1	5.6	0	1.36	3.27	0.11	2								
1-29-64			2.30	0.90	2.43	0.13	4.2	1	28	67	2								

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reaction				Mineral constituents in			
				Calcium C _a	Magnesium M _g	Sodium N _a	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Sulfate SO ₂
UPPER MOJAVE HYDRO SUBUNIT															
2N / 2W-32R 2 S 12-31-63	7.4	4.05	2.50 56	1.23 28	0.65 15	0.08 2	0	232 3.80	0.04 1	2 0.54 12	19 0.18 4	0.05 0.09	--	257	187
7-14-64	7.5	1.83	1.4 0.70	2 0.16	24 1.04	1 0.03	0	92 1.51 83	0 0.28 15	0 1.0 1	0.02 0.02 1	0 0.09 0	--	94	43
2N / 3W-19F 1 S 7-30-64	6.9	153	1.7 0.85	4 0.33	9 0.39	1 0.03	0	94 1.54 2	0 0.14 8	5 0.14 8	0.0 0.01 8	0 0.1 0	35	110	59
2N / 3W-19H 1 S 8-12-64	7.5	1.07	8 0.40	4 0.33	9 0.39	1 0.03	0	59 0.97 85	3 0.06 5	4 0.11 10	0.0 0.11 10	0 0.05 0	--	80	37
2N / 3W-19L 1 S 12-26-63	6.5	1.12	10 0.50	4 0.33	10 0.43	1 0.03	0	59 0.97 82	0 0.20 82	7 0.4 1	0.0 0.01 1	0 0.02 0	--	92	42
2N / 3W-19L 2 S 12-26-63	7.2	1.71	1.9 0.55	5 0.41	10 0.43	1 0.03	0	105 1.72 2	0 0.17 91	6 0.5 0.01	0 0.02 9	0 0.02 1	--	62	62
2N / 3W-19R 1 S 7-30-64	7.0	1.99	2.6 1.30	4 0.33	9 0.39	1 0.03	0	108 1.77 85	0 0.31 15	0 0.0 15	0 0.01 15	0 0.02 15	--	138	68
2N / 3W-2UN 1 S 7-30-64	6.9	1.23	8 0.40	5 0.41	9 0.39	1 0.03	0	56 0.92 74	0 0.31 25	11 0.0 25	0 0.02 25	0 0.02 2	27	130	82
MOJAVE HYDRO UNIT															
W2800															
W2800															
W2800															
W2800															

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity value						Mineral constituents in parts per million									
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	TDS	Evap 80°C	Evap 105°C	Total hardness as CaCO ₃
Date sampled				Mg	Mg	K	HCO ₃	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	Computed			
UPPER MOJAVE HYDRO SUBUNIT																			
2N/ 3W-26D 2 S 12-31-63	--	7.5	185	22	6	1.0	2	0	115	3	6	1.5	0.2	0	--	124	80		
7-14-64	--	7.3	297	34	11	10	1	0	110	35	13	12.0	0.02	1	107				
2N/ 3W-26E 1 S 12-31-63	--	7.7	169	20	6	10	2	0	100	4	5	1.6	0.2	0	--	215	130		
7-14-64	--	8.1	180	23	4	8	2	2	101	3	4	2.0	0	0.06	--	127	75		
2N/ 3W-27D 1 S 12-31-63	--	7.6	204	22	7	13	2	0	115	4	8	4.7	0.2	0.01	--	130	84		
7-14-64	--	7.3	279	36	7	13	3	0	149	7	11	6.5	0.1	0.09	--	117	119		
2N/ 4W-18L 1 S 6-12-64	50	7.0	170	14	4	11	3	0	66	13	7	0.0	0.2	0	--	108	52		
2N/ 4W-25H 1 S 7-16-64	51	6.9	80	8	1	7	1	0	43	0	3	1.0	0.1	0	35	80	24		
				U-40	0.08	0.30	0.03	0.70	0.70	0.70	0.08	0.02	0.02	0.02	3	77			
MOJAVE HYDRO UNIT																			
W28B0																			
7-14-64	--	7.3	297	34	11	10	1	0	110	35	13	12.0	0.02	1	107				
2N/ 3W-26E 1 S 12-31-63	--	7.7	169	20	6	10	2	0	100	4	5	1.6	0.2	0	--	215	130		
7-14-64	--	8.1	180	23	4	8	2	2	101	3	4	2.0	0	0.06	--	114	74		
2N/ 3W-27D 1 S 12-31-63	--	7.6	204	22	7	13	2	0	115	4	8	4.7	0.2	0.01	--	130	84		
7-14-64	--	7.3	279	36	7	13	3	0	149	7	11	6.5	0.1	0.09	--	117	119		
2N/ 4W-18L 1 S 6-12-64	50	7.0	170	14	4	11	3	0	66	13	7	0.0	0.2	0	--	108	52		
2N/ 4W-25H 1 S 7-16-64	51	6.9	80	8	1	7	1	0	43	0	3	1.0	0.1	0	35	80	24		
				U-40	0.08	0.30	0.03	0.70	0.70	0.70	0.08	0.02	0.02	0.02	3	77			
W2800																			
7-14-64	--	7.3	297	34	11	10	1	0	110	35	13	12.0	0.02	1	107				
2N/ 3W-26E 1 S 12-31-63	--	7.7	169	20	6	10	2	0	100	4	5	1.6	0.2	0	--	215	130		
7-14-64	--	8.1	180	23	4	8	2	2	101	3	4	2.0	0	0.06	--	114	74		
2N/ 3W-27D 1 S 12-31-63	--	7.6	204	22	7	13	2	0	115	4	8	4.7	0.2	0.01	--	130	84		
7-14-64	--	7.3	279	36	7	13	3	0	149	7	11	6.5	0.1	0.09	--	117	119		
2N/ 4W-18L 1 S 6-12-64	50	7.0	170	14	4	11	3	0	66	13	7	0.0	0.2	0	--	108	52		
2N/ 4W-25H 1 S 7-16-64	51	6.9	80	8	1	7	1	0	43	0	3	1.0	0.1	0	35	80	24		
				U-40	0.08	0.30	0.03	0.70	0.70	0.70	0.08	0.02	0.02	0.02	3	77			

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value				Mineral constituents in parts per million					
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	
Date sampled								HCO ₃	SO ₄	Cl	NO ₃	SiO ₂	
UPPER MOJAVE HYDRO SUBUNIT													
2N / 5W-3L 1 5 7-29-64	64	7.2	460	3.94 63	1.32 25	1.6 0.57 11	0.10 0.11	0 77	245 4.02 77	51 1.06 20	1.0 0.02 3	0.1 0.04 --	0 0.04 --
3N / 4W-32H 1 5 5-27-64	--	7.4	336	3.5 1.75 47	1.0 0.82 22	26 1.13 30	1 0.03 1	0 2.56 6.7	25 0.52 14	26 1.0 19	0.02 0.02 1	0.04 0.04 --	298 224 129
4N / 3W-1M 1 5 5-27-64	--	7.8	1453	109 5.44 38	2.8 2.10 16	144 0.26 44	6 0.15 1	0 1.88 1.88	115 4.43 13	213 8.15 31	289 0.06 56	0.8 0.70 --	201 1010 387
4N / 3W-6D 2 5 5-27-64	--	6.8	291	33 1.65 55	7 0.58 19	17 0.74 25	1 0.03 1	0 1.97 6.4	120 0.23 7	11 0.23 12	32.0 0.52 17	0.3 0.52 17	851 173 173
4N / 3W-9N 2 5 2-4-64	--	7.7	139	12 0.60 39	6 0.49 32	10 0.43 28	1 0.03 2	0 1.28 8.3	78 0.08 5	4 0.14 5	2.3 0.04 4	0.04 0.04 0	198 112 112
9-10-64	--	7.7	143	11 0.55 37	6 0.49 33	10 0.43 29	1 0.03 2	0 1.21 83	74 0.10 7	5 0.11 8	2.5 0.04 3	0.8 0.01 --	173 106 55
4N / 3W-20L 1 5 2-4-64	--	7.7	276	33 1.65 56	8 0.66 22	14 0.61 21	2 0.05 2	0 2.36 78	144 0.27 9	13 0.17 6	13.4 0.22 7	0.4 0.22 0	79 116 116
9-13-64	--	8.2	293	34 1.70 56	8 0.66 22	15 0.65 21	2 0.05 2	2 0.07 2	140 2.29 74	14 0.29 9	13.0 0.25 8	0.3 0.21 7	161 118 118

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million reactivity value						Mineral constituents in parts per million								
				Magnesium	Sodium	Potassium	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Total hardness as Evap 105°C	TDS	Total Evap 80°C	Evap 105°C		
Date sampled				Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	F	SiO ₂				CaCO ₃ Computed		
UPPER MOJAVE HYDRO SUBUNIT																		
4N / 3W-21E 1 S	--	7.7	170	1.7	0.85	0.49	0.52	0.03	0	95	7	5	1.6	0.05	0.02	--	110	67
2- 4-64				45	26	28	28	2	83	8	7	0.14	0.03	2			97	
9-10-64	--	8.0	184	1.8	0.41	0.57	0.03	1	0	93	7	9	2.5	0.4	0	--	120	66
4N / 5W-22H 1 S	--	7.5	640	4.0	2.00	0.58	3.65	13	0	1.52	0.15	2	0.25	0.04			102	
4-27-64				30	9	56	5	0.33	5.59	0.35	0.71	1	1.3	2			129	
4N / 7W-35L 2 S	5.4	7.7	820	7.9	4.0	5.2	4	0	341	17	25	3.4	0.1	0.37	20	384		
4-28-64				3.94	3.29	2.26	0.10	1	6.79	2.31	0.25	0.05	0.03				377	
5N / 3W-24N 1 S	--	7.5	1445	8.7	3.3	1.97	1.58	5	0	101	11	9	2.1	0.4	0.09	12	550	362
9-13-64				31	2.71	6.87	0.13	1	1.66	4.56	0.07	5	12	32			513	
5N / 3W-25F 1 S	--	8.5	1354	8.1	2.4	1.59	5	5	0.17	88	209	260	4.6	1.2	0.56	--	993	353
2- 4-64				31	1.5	53	1	1	1.44	4.35	7.33	0.07	1				840	
9-10-64	--	7.6	1312	8.1	2.06	1.62	4	0	95	211	253	6.8	1.3	0.55	--	829	301	
5N / 3W-27F 1 S	--	8.0	490	3.7	1.85	0.99	2.00	0.05	0	112	89	40	8.4	0.9	0.30	--	797	793
2- 4-64				38	20	41	4.6	2	1.84	1.85	1.13	0.14	3	37			846	305

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

Site well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reacione value						Mineral constituents in parts per million							
				Calcium C _o	Magnesium M _g	Sodium N _a	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Sulfur S	TDS Evap 80°C	
UPPER MOJAVE HYDRO SUBUNIT																	
5N / 3W-27E 1 S 9-10-64	--	7.7	927	3.39	1.03	2.1	0.08	0	1.10	1.85	1.26	4.5	0.7	0.69	--	607	256
5N / 4W- 80 1 S 1-30-64	--	8.2	181	0.10	0.33	1.61	0.03	3.7	1	81	2	2.1	0.3	0.01	--	558	22
5N / 4W- 96 2 S 1-30-64	--	8.4	195	0.35	0.41	1.30	0.05	0.07	1.01	2	2.3	0.2	0	--	114	22	
5N / 4W- 9J 1 S 1-30-64	--	9.1	201	0.05	0.25	1.96	0.03	45	1	61	5	1.4	0.5	0.03	--	107	22
5N / 4W- 9J 1 S 1-30-64	--	8.7	190	0.20	0.16	1.57	0.03	0.07	1.66	0.06	0.17	0.04	0.02	0.01	--	122	38
5N / 4W- 9J 1 S 1-30-64	--	8.8	190	0.10	0.16	1.83	0.03	0.47	1.33	0.15	6	2.2	0.3	0.01	--	106	38
5N / 4W- 9J 1 S 1-30-64	--	8.5	193	0.20	0.16	1.65	0.03	38	1	83	9	1.2	0.3	0	--	122	38
5N / 4W- 9P 1 S 1-30-64	--	8.5	184	0.35	0.25	1.57	0.03	36	1	83	5	1.2	0.2	0.01	--	108	30
MOJAVE HYDRO UNIT																	
W2800																	
5N / 3W-27E 1 S 9-10-64	--	7.7	927	3.39	1.03	2.1	0.08	0	1.10	1.85	1.26	4.5	0.7	0.69	--	607	256
5N / 4W- 80 1 S 1-30-64	--	8.2	181	0.10	0.33	1.61	0.03	3.7	1	81	2	2.1	0.3	0.01	--	558	22
5N / 4W- 96 2 S 1-30-64	--	8.4	195	0.35	0.41	1.30	0.05	0.07	1.01	2	2.3	0.2	0	--	114	22	
5N / 4W- 9J 1 S 1-30-64	--	9.1	201	0.05	0.25	1.96	0.03	45	1	61	5	1.4	0.5	0.03	--	107	22
5N / 4W- 9J 1 S 1-30-64	--	8.7	190	0.20	0.16	1.57	0.03	0.07	1.66	0.06	0.17	0.04	0.02	0.01	--	122	38
5N / 4W- 9J 1 S 1-30-64	--	8.8	190	0.10	0.16	1.83	0.03	0.47	1.33	0.15	6	2.2	0.3	0.01	--	106	38
5N / 4W- 9J 1 S 1-30-64	--	8.5	193	0.20	0.16	1.65	0.03	38	1	83	9	1.2	0.3	0	--	122	38
5N / 4W- 9P 1 S 1-30-64	--	8.5	184	0.35	0.25	1.57	0.03	36	1	83	5	1.2	0.2	0.01	--	108	30

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity						Mineral constituents in parts per million								
			pH	Calcium C. ^a	Magnesium M _g	Sodium N _a	Potassium K	Carbon dioxide CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Sulfur Sulfate SO ₄	Total Evap. B/C Comp.	Hardness CaCO ₃
UPPER MOJAVE HYDRO SUBUNIT																	
5N/ 4W-9P 1 S 9-19-64	--	8.5	193	0.35	7	0.41	1.30	0.05	0	104	6	1.02	0.03	0.04	--	105	39
5N/ 4W-10N ? S 1-30-64	--	9.0	204	0.10	2	0.16	1.96	0.03	19	1.70	0.12	0.02	0.05	--	109		
	--	8.8	203	0.20	4	0.10	1.96	0.03	62	0.85	6	0.01	0.05	0.01	--	125	13
	--	9-10-64	400	0.20	9	0.16	1.78	0.03	82	1.28	0.10	0.20	0.03	0.05	--	122	
	--	7.9	400	0.00	4	0.33	2.39	0.05	27	0.63	1	0.14	0.05	0.01	--	143	18
	--	9-13-64	189	0.25	5	0.23	1.61	0.03	15	3.7	1	0.29	0.17	0.02	--	116	
	--	8.6	202	0.20	4	0.16	1.61	0.03	73	1.01	0.05	0.03	0.08	0.42	--	216	67
	--	9-19-64	207	0.10	2	0.08	1.87	0.03	8	3.8	1	0.06	0.05	0.01	--	218	
	--	8.4	190	0.30	6	0.25	1.57	0.03	12	36	1	0.06	0.03	0.01	--	115	29
	--	9-10-64	14	0.03	3	0.25	1.57	0.03	12	36	1	0.06	0.03	0.01	--	114	
	--	8.7	190	0.30	6	0.25	1.57	0.03	12	36	1	0.06	0.03	0.01	--	130	18
	--	9-10-64	14	0.03	3	0.25	1.57	0.03	12	36	1	0.06	0.03	0.01	--	112	
	--	8.7	190	0.30	6	0.25	1.57	0.03	12	36	1	0.06	0.03	0.01	--	120	9
	--	9-10-64	14	0.03	3	0.25	1.57	0.03	12	36	1	0.06	0.03	0.01	--	117	
	--	8.7	190	0.30	6	0.25	1.57	0.03	12	36	1	0.06	0.03	0.01	--	121	28
	--	9-10-64	14	0.03	3	0.25	1.57	0.03	12	36	1	0.06	0.03	0.01	--	112	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity				Mineral constituents in parts per million										
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfate	Total hardness Eqv (°C) Computed CaCO ₃		
Date sampled				Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	5 O.2			
UPPER MOJAVE HYDRO SUBUNIT																		
5N / 4W-20B 1 S	--	8.5	197	6	4	0.30	1.43	2	1.70	0.06	3	6	8.4	0.3	0	--	132	32
9-10-64				14	16			3	79	0.07	8	8	0.14				116	
5N / 4W-35H 3 S	--	7.8	253	22	5	1.09	0.05	2	--	121	12	10	5.6	0.3	0	25	124	76
1-24-64				10	47				76	0.25	11	3	0.28	0.09			166	
5N / 4W-35J 1 S	--	7.7	285	30	2	0.16	0.96	1	0	124	20	7	4.0	0.2	0.03	--	148	83
6-23-64				50	57			0.03		2.03	0.42	0.20	0.06	0.06			148	
5N / 4W-35J99 S	--	7.8	18U	21	4	0.33	0.70	1	0	107	6	5	6.2	0.4	0	24	127	69
1-24-64				50	50			0.03		1.75	0.12	0.14	0.10	0.10			136	
5N / 4W-35R 1 S	--	7.4	157	17	3	0.85	0.48	1	0	82	3	4	1.1	0.3	0.02	26	120	55
6-23-64				53	53			0.03		1.34	0.06	0.11	0.02	0.02			107	
5N / 5W-22F 2 S	--	8.1	437	31	6	0.49	2.35	3	0	71	14.5	5	1.6	0.6	0.01	--	281	10?
1-79-64				55	35			0.08		1.16	3.02	0.14	0.03	0.03			281	
9- R-64	--	8.1	448	26	9	0.30	0.74	3	0	70	14.6	4	2.0	0.5	0	--	282	10?
				29	17			0.08		1.15	3.04	0.11	0.03	0.03			278	
6N / 3W-9D 1 S	--	8.7	763	4	2	0.16	0.29	3	0.08	14	56	32	0.3	15.6	1.06	--	481	18
1-30-64				3	2			0.47		0.92	4.29	0.90	14				468	
MOJAVE HYDRO UNIT																		
W2800																		
W28B0																		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963 /64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents				parts per million equivalents per million percent reactivity				Mineral constituents in parts per million						
				Calcium C _o	Magnesium M _g	Sodium N _a	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Baron B	Silicate SiO ₂	Total Evap 80°C as % of Evap 105°C		
UPPER MOJAVE HYDRO SUBUNIT																		
W2800																		
6N/ 3W- 9D 1 S 9-13-64	--	8.6	791	6 0.30	0 95	0 7.00	0 0.08	3 0.17	5 1.36	83 4.35	209 0.85	30 0.01	1.18	--	501			
6N/ 3W- 9E 1 S 1-30-64	--	8.1	1422	29 1.45	7 0.58	302 13.13	4 0.10	0 6.05	0 4.14	199 3.61	128 0.79	49.0 5	1.55	--	473			
9-13-64	--	8.2	1855	37 1.85	8 0.66	260 15.65	4 0.00	2 0.07	2 3.18	194 9.12	166 4.68	70.0 1.13	1.60	--	923			
6N/ 3W-28R 1 S 9-10-64	--	7.7	878	77 3.84	21 1.73	3.35 0.05	2 2.10	0 3.06	0 2.57	128 3.10	147 9.1	66.0 1.06	0.24	--	911			
6N/ 4W- 6D 1 S 1-30-64	--	7.5	808	80 3.99	18 1.48	74 3.22	3 0.08	0 4.47	0 4.7	105 4.7	135 3.2	29 22	1.12	--	1203			
6N/ 5W- 8F 1 S 1-79-64	--	8.3	441	6 0.30	3 5	93 87	1 1	12 0.40	12 0.40	105 1.72	106 2.25	4 0.11	0.14	--	1194			
9- 8-64	--	8.4	460	5 0.25	4 0.33	91 3.96	1 0.03	0 2.03	0 2.03	124 2.31	111 0.11	4 0.11	0.12	--	586			
6N/ 5W- 9B 1 S 1-10-64	68	7.9	550	8 0.40	2 0.16	115 5.00	1 0.03	0 2.84	0 2.35	173 5.2	113 4.3	7 0.20	0.27	15	279			
MOJAVE HYDRO UNIT																		
W2800																		
6N/ 3W- 9D 1 S 9-13-64	--	8.6	791	6 0.30	0 95	0 7.00	0 0.08	3 0.17	5 1.36	83 4.35	209 0.85	30 0.01	1.18	--	501			
6N/ 3W- 9E 1 S 1-30-64	--	8.1	1422	29 1.45	7 0.58	302 13.13	4 0.10	0 6.05	0 4.14	199 3.61	128 0.79	49.0 5	1.55	--	473			
9-13-64	--	8.2	1855	37 1.85	8 0.66	260 15.65	4 0.00	2 0.07	2 3.18	194 9.12	166 4.68	70.0 1.13	1.60	--	1203			
6N/ 3W-28R 1 S 9-10-64	--	7.7	878	77 3.84	21 1.73	3.35 0.05	2 2.10	0 3.06	0 2.57	128 3.10	147 9.1	66.0 1.06	0.24	--	1194			
6N/ 4W- 6D 1 S 1-30-64	--	7.5	808	80 3.99	18 1.48	74 3.22	3 0.08	0 4.47	0 4.7	105 4.7	135 3.2	29 22	1.12	--	586			
6N/ 5W- 8F 1 S 1-79-64	--	8.3	441	6 0.30	3 5	93 87	1 1	12 0.40	12 0.40	105 1.72	106 2.25	4 0.11	0.14	--	545			
9- 8-64	--	8.4	460	5 0.25	4 0.33	91 3.96	1 0.03	0 2.03	0 2.03	124 2.31	111 0.11	4 0.11	0.12	--	274			
6N/ 5W- 9B 1 S 1-10-64	68	7.9	550	8 0.40	2 0.16	115 5.00	1 0.03	0 2.84	0 2.35	173 5.2	113 4.3	7 0.20	0.27	--	505			
W2800																		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity value						Mineral constituents in parts per million							
				Calcium C _a	Magnesium M _g	Sodium N _a	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silicate SiO ₂	TDS Evap 180°C	
UPPER MOJAVE HYDRO SUBUNIT																	
6N/ 5W-29J 2 S 1-29-64	7.7	4.60	1.95	0.66	2.43	0.05	56	2	0	220	32	28	1.5	0.6	0.05	--	26.9
			38	13	48	1	48	1	0	3.61	0.67	0.79	0.02				131
			7.3	4.87	1.90	0.90	2.13	0.05	0	199	33	30	0.7	0.6	0.09	--	275
9- 8-64			38	18	43	1	49	2	0	2.26	0.69	0.85	0.01				140
7N/ 4W- 7C 1 S 2- 4-64	7.4	6.65	7.6	14	6.3	2	0	303	0	3.26	1.14	18					275
			3.79	1.15	2.74	0.05	6.3	2	0	4.97	1.52	1.10	0.1	0.8	0.09	--	26.2
			4.9	1.5	3.5	1	5.5	1	65	65	20	14					24.7
7N/ 4W-31N 1 S 2- 4-64	7.4	5.33	1.8	4	1.00	2	0	232	0	5.6	28	0.2	1.2	0.28	--	--	41.8
			0.90	0.33	4.35	0.05	3.80	1	3.80	1.17	20	14					41.7
			1.6	6	7.7	1	6.6	1	66								34.7
9-13-64	8.2	5.65	1.9	2	1.05	2	7	1.94	0	6.5	33	0.5	1.44	0.64	--	--	6.2
			0.95	0.16	4.57	0.05	0.23	3.18	1	1.35	0.93	0.01					32.4
7N/ 5W- 7N 1 S 4-7-64	8.1	162.0	5.8	23	290	6	0	187	4.58	160	2.0	1.0	0.94	18	1112	239	
			2.89	1.89	12.61	0.15	12.61	1	72	1	18	56					1109
			1.16	1.11													

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reacidence value						Mineral constituents in parts per million								
			Calcium	Magnesium	Sodium	Potassium	Carbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	TDS			
Date sampled	pH	Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	B	SiO ₂	Total hardness as CaCO ₃	Equiv 105°C	Equivalent 105°C			
MIDDLE MOJAVE HYDRO SUBUNIT																	
7N/ 1W-9F 1 S 4-7-7-64	--	8.0	4.00	3.2	0.58	1.60	0.38	0	1.39	4.1	2.7	7.3	1.2	0.20	24	252	103
8N/ 4W-12P 1 S 2-28-64	--	7.3	1.006	1.08	2.3	1.89	1.7	0	3.78	0.85	0.76	0.12	3	0.10	--	255	364
8N/ 4W-20A 1 S 2-28-64	--	7.9	1.709	0.95	1.4	2.72	3	0	6.20	0.27	2.70	0.6	0.10	--	662	622	295
8N/ 4W-21C 1 S 2-28-64	--	7.5	1.704	2.17	4.1	1.41	3	0	1.09	1.79	2.40	1.0	1.0	0.10	--	1109	1076
8N/ 4W-30A 2 S 1-21-64	64	7.5	3.000	3.45	5.5	3.17	5	0	3.58	6.22	6.77	0.16	1	0.09	--	1369	711
8N/ 4W-30E 1 S 1-22-64	74	7.6	1.660	0.84	0.49	10.44	0.10	0	5.87	1.95	1.70	0.02	4.1	0.21	--	1301	2150
9N/ 2W-1C 1 S 3-25-64	--	7.8	7.90	7.3	2.1	8.0	4	0	2.64	1.65	3.0	0.4	0.18	21	2252	1088	
9N/ 2W-1F 1 S 3-26-64	--	8.0	5.70	3.64	1.73	3.48	0.10	0	4.33	3.44	0.99	0.05	1	0.18	24	582	535
																372	171
																373	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity value						Mineral constituents in parts per million								
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silicate	TDS	Total hardness	Evap. 80°C
Date sampled	C.O.	M.Q.	N.Q.	K	Na	CO ₃	HCO ₃	SO ₄	Cl	F	B	S ₂	B	S ₂	E ₈₀	E ₆₅	Computed	CaCO ₃
MIDDLE MOJAVE HYDRO SUBUNIT																		
W2800																		
9N/ 2W-1F 2 S 3-3-64	--	8.1	587	5.3 2.64 4.3	0.82 2.61 4.3	10 0.05 1	60 0.05 43	2 0	201 3.29 52	85 1.77 28	41 1.16 19	3.0 0.05 1	0.17 0.21 21	--	382	173		
9N/ 2W-1F 4 S 3-27-64-64	63	8.2	565	5.4 2.69 4.5	0.56 2.61 4.3	8 0.05 1	60 0.05 43	2 0	195 3.20 52	83 1.16 28	41 1.16 19	2.2 0.6 0.04	0.21 1 1	21	354			
9N/ 2W-6B 1 S 2-17-64	--	7.5	323	2.7 1.35 3.9	0.66 0.39 1.19	8 0.05 4.0	32 0.05 1	0 2.16	132 0.62 64	30 0.54 18	19 0.54 16	3.5 0.7 2	0.05 0.06 2	--	366	168		
9N/ 2W-117E 1 S 2-28-64	--	8.1	697	3.0 1.50 2.1	0.58 0.08 0.8	7 0.08 70	115 0.08 1	0 3.47 4.8	212 2.35 33	113 1.30 18	46 1.30 18	3.1 0.05 1	0.87 0.05 1	--	209	101		
9N/ 3W-1J 1 S 2-17-64	--	7.7	367	2.7 1.35 3.5	0.58 1.83 1.48	7 0.05 1	42 0.05 1	0 2.69 6.8	164 2.62 6.8	30 0.62 16	21 0.59 15	2.5 0.04 1	0.08 0.05 1	--	187			
9N/ 3W-3A 2 S 2-17-64	--	7.7	777	4.8 2.40 4.1	0.66 0.66 0.66	8 0.05 1	64 0.05 4.7	2 0.05 1	217 3.56 58	61 1.33 21	47 1.33 21	1.8 0.9 21	0.14 0.03 21	--	4.80	104		
9N/ 3W-15R 1 S 2-17-64	--	7.1	656	4.0 2.00 3.1	0.90 0.05 14	11 0.05 55	82 0.05 1	2 0.05 1	249 4.08 59	24 0.50 7	82 0.31 33	0.9 0.01 33	0.14 0.01 33	--	4.26			
9N/ 3W-24J 1 S 2-28-64	--	8.0	589	3.4 1.70 7.7	0.58 0.08 0.9	7 0.08 62	88 0.08 1	0 3.61 57	220 1.56 25	75 1.13 18	0.8 0.01 18	1.3 0.33 18	0.33 0.01 18	--	3.92	114		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents				parts per million equivalents per million percent reacidence value				Mineral constituents in parts per million					
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silicate	Total hardness as CaCO ₃	
Date sampled	Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	TDS (80°C)	Equiv 105°C	Computed		
MIDDLE MOJAVE HYDRO SURUNIT																	
9N/ 3W-26H 1 S 2-2H-64	--	8.1	678	1.8 0.90	0.58 0.13	7 5.35	0.08 77	123 1	0 4.3	181 2.97	130 2.71	4.2 1.18	7.0 0.11	2.2 2	0.68 0.24	-- --	
9N/ 3W-28A 1 S 2-2A-64	--	7.2	1030	9.2 4.59	1.48 4.3	18 4.43	0.06 1	102 4.2	3 3.52	215 4.08	196 3.19	6.0 0.10	0.7 2.9	0.24 1	-- --	4.41 4.22	
10N/ 2W-30H 1 S 2-17-64	--	7.8	4666	3.9 1.95	0.74 4.0	9 2.13	0.05 1	4.9 4.4	2 0.05	0 3.39	207 0.83	40 0.73	26 0.08	0.6 0.14	-- --	6.77 6.37	
10N, 3W-1,E 1 S 5- 1-64	6.8	8.0	1700	1.8 0.90	0.41 0.41	5 16.52	0.26 0.26	380 16.52	10 0.26	0 5.69	347 6.02	289 6.15	26 0.03	1.7 1.06	2.30 0.34	16 34	304 135
10N/ 3W-23H 4 S 1- 8-64	6.8	8.2	570	1.3 0.65	0.08 1.1	1 5.22	0.03 1	120 87	1 0.03	0 4.49	274 0.71	34 0.71	25 0.02	1.4 1.06	1.62 0.91	25 --	272 272
10N/ 3W-26F 1 S 10-18-63	--	7.5	2725	3.92 17.56	5.59 5.8	6.8 18	0.15 23	163 126	6 5	0 0.13	261 247	54.9 33.1	21.6 10.6	0.6 0.17	0.91 0.49	-- --	11.12 3.7
10N/ 3W-26F 2 S 10-18-63	--	7.5	2105	2.53 12.62	5.2 4.28	52 0.13	0 4.05	126 24	5 1.13	0 0.89	313 6.89	380 10.72	13.4 0.17	0.35 0.17	0.49 0.49	-- --	358 1769
10N/ 3W-27D 1 S 2-17-64	--	7.9	838	6.2 3.09	1.15 3.6	14 1.15	0.05 0.22	97 50	0 0.05	0 3.00	183 3.25	156 2.40	85 0.05	3.3 0.7	0.29 0.1	-- --	1280 1736
																552 510	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	Specific conductance (micro-mhos at 25°C)	Mineral constituents in						Mineral constituents in					
			Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Boron	Silicate	T.D.S.
Date sampled			Mg	Na	K	HCO ₃	CO ₃	SO ₄	Cl	B	F		Evap 180°C	Evap 105°C
													Computed	CaCO ₃
W2800														
MOJAVE HYDRO UNIT														
MIDDLE MOJAVE HYDRO SUBUNIT														
W2800														
10N / 3W - 36J 2 S	--	7.6	494	4.7	10	4.1	2	0	146	60	3.0	0.7	0.10	--
7-17-64				2.35	0.82	1.78	0.05	2.39	1.25	1.41	0.06			316
				4.7	16	36	1	4.7	24	28	1			159
														286

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in						Mineral constituents in								
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfate	T.D.S.		
Date sampled				C _o	Mg	No	K	CO ₂	HCO ₃	SO ₄	Cl	NO ₃	B	Evap 80°C	Evap 105°C	Total hardness as CaCO ₃	Computed	
MOJAVE HYDRO UNIT																		
W2800																		
W28D0																		
HARPER HYDRO SUBUNIT HARPER HYDRO SUBAREA																		
11N / 4W-28N 1 S 1-23-64	--	8.0	1497	51 2.54 17	9 0.74 5	273 1.87 78	5 0.13 1	0 2.47 17	151 4.58 31	220 7.56 51	26.8 6.0 1	0.8 0.10	1.06 51	--	956 908	164		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million				Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silicate	
Date sampled				M g	M g	N a	K	C O ₃	H C O ₃	S O ₄	N O ₃	F	B	S i-O ₂	Evd 180°C as CaCO ₃	
LOWER MOJAVE HYDRO SUBUNIT																
9N / 1E- 1L 1 S 3- 4-64	--	8.2	375	1.65 41	0.49 12	6 46	4.3 1	2 5	0.05 2.87	0.23 2.87	7 68	1.75 0.54	0.7 0.02	0.11 --	252 107	
9N / 1E- 1M 1 S 3- 4-64	--	7.7	462	4.3 43	0.58 12	7 44	5.1 1	2 66	0.05 3.29	0.21 0.77	0 15	1.3 0.85	0.6 0.08	0.12 --	224 137	
--	--	8.0	435	4.4 2.20	0.49 0.45	6 10	5.1 1	2 66	0.05 3.28	0 0.75	0 15	3.0 0.85	0.6 0.06	0.16 0.19	265 275	
3-24-64	--	--	4.4	1.20 5.22	1.23 0.08	3 1	0 0.51	0 3.44	0 3.44	336 2.82	0 29	30 24	0.4 0.23	0.16 0.2	19 19	280 135
9N / 1E-13E 2 S 3- 3-64	--	7.6	1089	9.8 4.89	1.23 5.22	15 0.88	1.20 0.08	3 0.51	0 5.46	165 100	0 29	14.0 14.0	0.6 0.23	0.52 0.52	--	290 725
9N / 1E-15E 2 S 3- 3-64	--	7.6	108	9.5 4.74	1.48 1.3	18 45	1.20 0.08	3 1	0 46	236 166	0 166	14.0 10.1	0.6 0.6	0.54 0.54	--	290 725
--	--	8.2	990	9.0 4.49	1.56 3.9	19 14	1.23 4.7	3 1	0.08 0.46	324 29	0 24	14.0 2.79	0.2 0.13	0.58 1.1	24	681 722
3-23-64	--	--	4.49	5.35 3.9	5.35 14	0.56 1	5.35 4.7	0.08 1	0.08 0.46	5.31 4.6	0 29	8.3 24	0.2 0.23	0.58 0.23	24	683 722
9N / 2E- 3K 1 S 3-24-64	64	7.9	420	36 1.80	8 0.66	56 2.43	1 0.03	1 1	0 49	199 3.26	0 69	21 18	0.0 0.59	0.4 0.4	19 19	686 286
9N / 2E- 8N 2 S 3- 4-64	--	7.8	346	30 1.50	5 0.41	39 1.70	1 0.03	0 1	0 47	165 2.70	0 72	15 16	0.8 0.42	0.10 0.04	--	688 227
																96 203

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaclance value						Mineral constituents in parts per million						
				Calcium C a	Magnesium M g	Sodium N a	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Barium Baro.	Silica SiO ₂	TDS Total
Date sampled																Evd 180°C
LOWER MOJAVE HYDRO SURUNIT																
9N/ 2E-8N 2 S	--	7.7	350	3.2 1.60 4.1	5 0.41 10	4.4 1.91 4.8	0.03 0.03 1	0 2.79 7.1	1.70 0.71 1.8	3.4 0.39 1	1.4 0.39 10	0.03 0.03 1	0.16 0.16 1	17	252	
9N/ 2E-18E 1 S	--	8.0	460	4.1 2.05 4.3	8 2.04 14	4.7 0.05 4.3	2 0.05 1	0 2.67 5.5	1.63 1.19 24	5.7 0.87 18	3.1 0.13 3	0.11 0.11 3	--	--	233	
65	7.9	450	4.5 2.25 4.2	9 0.74 14	54 2.35 44	2 0.05 1	0 0.05 1	0 1.82 56	1.82 0.90 24	6.2 0.90 17	3.2 0.13 2	0.16 0.16 19	19	298		
3-23-64															136	
10N/ 2E-25P 1 S	--	8.5	475	2.3 1.15 2.2	10 0.82 16	73 3.17 61	1 0.03 1	10 0.33 6	1.78 2.92 5.7	4.6 0.96 19	3.2 0.90 18	0.0 0.0 18	0.29 0.29 --	--	275	
10N/ 2E-31R 1 S	--	8.0	447	3.4 1.70 3.7	5 0.41 9	57 2.48 54	1 0.03 1	0 2.90 62	1.77 0.90 19	4.3 0.90 19	3.1 0.87 19	0.25 0.02 19	--	--	321	
3-24-64															150	
10N/ 3E-34C 1 S	--	7.9	653	3.2 1.60 2.4	5 0.41 6	104 4.52 69	2 0.05 1	0 2.98 44	1.82 2.98 44	10.6 2.21 33	5.6 1.58 23	0.3 0.3 23	0.98 0.98 20	--	296	
3-24-64															99	
10N/ 3E-28P 4 S	--	7.7	610	3.4 1.70 2.6	12 0.99 15	86 3.74 58	1 0.03 1	0 4.03 63	2.46 1.02 63	4.6 1.30 16	0.0 0.0 20	0.26 0.26 20	--	--	350	
6-24-64															135	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents				Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Boronate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silicate
Date sampled				M g	M g	M g	M g	CO ₃	HCO ₃	SO ₄	B	SiO ₂	Total hardness Eqv 18°C Eqv 35°C Computed CaCO ₃		
LOWER MOJAVE HYDRO SUBUNIT															
10N/ 3E-30M 1 S	--	8.4	520	0.75	0.25	15	3	96	0.08	0.17	2.95	0.85	4.8	0.0	0.4
10N/ 6-24-64				14	5	4.17	79	2	3	55	16	25	1.35	1.41	--
10N/ 4E-19N 1 S	5.8	7.8	360	20	2	56	1	0	108	4.4	33	0.0	0.4	0.16	2.0
10N/ 3-23-64				1.00	0.16	2.43	0.03	1	1.77	0.92	0.93	26	0.93	0.16	20
9N/ 1W- 4G 1 S	--	8.1	650	65	12	73	3	0	245	97	43	0.0	0.4	0.16	1.8
9N/ 3-24-64				3.24	0.99	3.17	0.08	1	4.02	2.02	1.21	0.02	1.3	0.16	1.8
9N/ 1W- 9D 2 S	--	8.0	2000	127	3.7	335	6	0	289	544	270	7.3	1.2	3.20	1.8
9N/ 3-24-64				6.34	3.04	14.57	0.15	1	4.74	11.3	7.61	1.12	1.2	1.450	4.69
9N/ 1W- 9G 3 S	--	7.5	1036	86	21	126	2	0	381	125	90	1.2	0.7	0.82	2.9
9N/ 6-18-64				4.29	4.29	1.73	5.48	0.05	6.24	2.60	2.54	0.02	0.0	0.14	--
9N/ 1W-10D 2 S	--	7.9	675	66	11	65	3	0	236	102	46	1.5	0.6	0.16	1.8
9N/ 3- 4-64				3.29	0.90	2.83	0.08	1	3.87	2.2	1.30	0.02	0.0	0.14	--
9N/ 1W-10E 1 S	--	7.7	700	69	13	75	3	0	242	115	48	0.0	0.4	0.16	1.8
9N/ 3-24-64				3.44	1.07	3.26	0.08	1	3.97	2.39	1.35	1.18	1.35	0.16	1.8
9N/ 1W-10E 1 S	--	7.5	846	75	18	95	2	0	343	89	63	4.0	0.8	0.90	2.6
9N/ 6-18-64				3.74	1.48	4.13	0.05	1	5.62	1.85	1.78	0.06	0.0	0.90	2.6
				4.0	16	44	1		60	20	19	1			542

TABLE E-I
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reactivity value				Mineral constituents in parts per million					
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silicate	T.D.S.	
Date sampled				M g	M g	N a	K	C O ₃	H C O ₃	S O ₄	C l	N O ₃	F	B	S i O ₂	Total hardness	
LOWER MOJAVE HYDRO SUBUNIT																	
W28EO																	
9N/ 1W-10G 1 S	--	7.9	2046	210	10.48	0.82	16.70	0.05	2	0	574	622	199	27.0	0.9	1.26	--
3- 4-64				37	3		60			33	9.41	12.95	5.61	0.44			1717
9N/ 1W-13H 1 S	--	7.5	806	61	1.2	98	3	0	232	118	78	3.0	0.8	0.40	25		565
6-29-64				36	0.94	4.26	0.08		0	3.80	2.46	2.20	0.05				1738
9N/ 1W-13H 2 S	64	7.5	650	58	10	97	2	0	221	110	71	1.3	0.4	0.42	20		202
3-23-64				36	2.89	0.82	4.22	0.05	0	3.62	2.29	2.00	0.02				530
10N/ 1W-32J 1 S	--	7.9	759	70	1.1	80	3	0	258	124	49	1.8	0.6	0.16	--		513
3- 4-64				36	3.49	0.0	3.48	0.08	0	4.23	2.58	1.38	0.03				186
10N/ 1W-33E 1 S	--	7.8	810	67	1.7	10.1	4	0	279	161	53	0.0	0.4	0.23	18		479
3-24-64				36	3.34	1.40	4.48	0.10	0	4.57	3.35	1.49	0.36				468
MOJAVE HYDRO UNIT																	220
W2800																	566
LAHONTAN DRAINAGE PROVINCE (W)																	237
W2800																	561

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million						
				Calcium	Magnesium	Sodium	Potassium	Chloride	Sulfate	Bicarbonate	Carbon dioxide	Nitrate	Nitrite	Boron	Silica	
Date sampled				C _o	Mg	Na	K	HCO ₃	CO ₂	SO ₄	F	B	E _{100°C}	E _{200°C}	Total hardness as CaCO ₃	
MOJAVE HYDRO UNIT																
CAVES HYDRO SUBAREA				W2860	W2861	W2860	W2861									
10N / 3E-14 J 1 S 6-24-64	78	7.9	670	5.2 2.59 37	9 0.74 11	83 3.61 52	1 0.03	0 2.43 36	14.8 1.56 23	75 2.71 4.0	96 0.03	2.0 0.03	0.46	--	4.02	167
11N / 3E-35 F 1 S 4-79-64	74	4.1	340	10 0.50 14	6 0.49 14	56 2.43 70	2 0.05 1	0 0.07 2	4 0.10 3	5 116 3.27	1.3 0.02	0.6 0.36	1	3.92	272	50
															200	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance						Mineral constituents in parts per million							
				Calcium C _a	Magnesium M _g	Sodium N _a	Potassium K	Carbonate C _O ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron Boron	Silicate SiO ₂	T.D.S. Total dissolved solids	
14N/ 8E-36A 1 S 5- 4-64	--	7.8	5800	182 9.08 14	143 11.76 18	1000 43.48 67	20 0.51 1	0	254 4.016 6	258 5.37 8	1933 54.51 85	21.0 0.34 1	2.0	1.72	4.2	3894 1043	
BAKER HYDRO SUBUNIT SODA LAKE HYDRO SUBAREA				MOJAVE HYDRO UNIT						W2800							
BAKER HYDRO SUBUNIT SODA LAKE HYDRO SUBAREA				W28H0						W28H2							

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent						Mineral constituents in parts per million									
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfur dioxide	T.D.S. from 105°C Evap.	Total hardness	CaCO ₃ Computed	
Date sampled																			
KELSO HYDRO SUBUNIT																W2800		W2810	
11N12E-25G 1 S 5- 7-64	--	8.1	84.0	4.5	2.2	10.3	0	183	144	84	14.0	0.02	0.16	1.8	4.98	203			
				2.25	1.81	4.48	0.08	3.00	3.00	2.37	0.23								
				2.6	2.1	5.2	1	35	35	28	3								

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million per million percent										
			Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Barium	Silicate	TDS				
Date sampled			Mg	Mg	K	CO ₃	HCO ₃	SO ₄	Cl	F	B	SiO ₂	Total Evap 80°C Evap 105°C Computed Caco ₃						
LUCERNE HYDRO UNIT																			
X0100																			
4N/ 1F-3F 1 S 6-19-64	--	7.7	4.11	4.4	2.20	1.73	0.87	0.05	2	0	236	32	5	3.0	0.7	0.05	--	312	197
4N/ 1E-1R 2 S 5-28-64	--	8.1	11.11	2.3	0.49	8.91	0.13	5	0	123	255	113	2.5	5.9	0.77	--	244	82	
4N/ 1F-30 1 S 4- 8-64	--	7.9	6.80	6.6	2.1	5.0	2	0	118	201	41	2.4	6	0.6	--	70.3	70.3	82	
4N/ 1E-6H 1 S 5-27-64	--	7.6	5.67	5.3	2.4	3.7	1	0	190	113	33	2.0	4	0.05	--	6.77	6.77	8.2	
4N/ 1E-9A 1 S 5-28-64	--	8.1	5.49	5.4	2.1	3.2	2	0	120	154	20	1.8	6	0.04	--	4.69	4.69	5.1	
4N/ 1E-12P 2 S 5-28-64	--	7.9	7.91	4.3	2.15	3.29	0.05	0.05	0	1.97	3.21	0.56	0.03	1	0.04	--	3.87	3.87	4.21
4N/ 1F-32A 1 S 6-19-64	--	7.6	5.58	3.4	1.70	1.56	2.70	0.31	0	258	73	17	0.0	1.8	0.13	--	3.44	3.44	3.72
4N/ 2E-17B 1 S 5-28-64	--	8.0	5.87	4.0	2.00	1.56	2.7	25	4.3	4.23	1.52	0.48	8	0.04	--	5.54	5.54	5.94	

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity						Mineral constituents in parts per million per million percent								
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	TDS	Evap 80°C	Evap 105°C
Date sampled				Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	C _l	NO ₃	F	B	SiO ₂	Computed		
LUCERNE HYDRO UNIT X1000																		
5N/ 1E-17C 2 S 5-28-64	--	7.8	4.936	226	28	845	11	0	84	664	1260	0.0	3.9	3.75	--	3211	680	
				11.28	2.30	36.74	0.28	1.38	13.82	35.53	35.53							
				22	5	73	1	3		70								
5N/ 1E-19D 1 S 5-28-64	--	7.9	2.521	259	108	148	5	0	123	210	743	2.8	0.5	0.04	--	3083	1091	
				12.92	8.88	6.44	0.13	2.02	4.37	20.95	0.05							
				46	31	23		7	16	76								
5N/ 1E-23C 1 S 5-28-64	--	7.9	11.040	336	55	2180	0	0	115	b34	3400	1.0	7.7	8.00	--	2117	1537	
				16.77	4.52	94.79			1.88	17.36	95.88	0.02						
				14	4	82		2		15	83							
5N/ 1E-28A 1 S 6-22-64	--	7.8	3.812	133	13	702	14	0	99	498	930	0.5	8.0	2.25	--	7249	1065	
				6.64	1.07	30.52	0.36	1.62	10.37	26.23	0.01							
				17	3	79	1	4	27	64								
5N/ 1E-29N 1 S 5-28-64	--	7.0	7.62	73	28	44	2	0	156	64	134	2.3	0.5	0.02	--	6878	386	
				3.64	2.30	1.91	0.05	2.56	1.33	3.78	0.04							
				46	29	24	1	33	1.7	4.9	1							
5N/ 1E-31F 1 S 5-28-64	--	8.0	1.93	46	19	4.3	2	0	173	81	36	12.3	0.5	0.03	--	2349	297	
				2.30	1.56	1.87	0.05	2.84	1.69	1.02	0.20							
				40	27	32	1	4.9	29	18	3							
5N/ 1E-32P 1 S 5-28-64	--	7.6	1.027	90	37	85	2	0	226	24.2	85	b.3	0.5	0.20	--	425	193	
				4.09	3.04	3.70	0.05	3.70	3.070	5.04	2.40	0.13	1					
				4.	27	33		33	4.5	21								
5N/ 1E-32R 1 S 5-28-64	--	8.0	5.79	52	21	44	2	0	135	14.7	27	2.3	0.6	0.10	--	661	377	
				2.59	1.73	1.91	0.05	2.21	3.06	0.76	0.04							
				41	28	30	1	36	50	13	50							

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity				Mineral constituents in parts per million										
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Silicate	Boron	T.D.S.	Total Evap 80°C	Hardness °C
Date sampled																		
LUCERNE HYDRO UNIT X0100																		
X0100																		
4N / 1W-9R 1 S 5-27-64	--	7.9	4.47	5.8 2.89	6 0.49	3.2 1.39	1 0.03	0	1.92 3.15	5.6 1.48	1.7 0.03	0.7 0.10	0.02 0	--	293	169		
4N / 1W-11N 2 S 5-27-64	--	8.1	3.63	2.7 1.35	2.2 1.81	2.1 0.91	3 0.08	0	200 3.28	2.7 0.56	5 0.14	0.3 0.14	0 2	--	267	223		
4N / 1W-110 1 S 5-27-64	--	7.4	7.37	7.8 3.89	4.4 3.62	4.9 2.13	2 0.05	0	366 6.00	11.6 2.42	34 0.96	0.7 0.10	0.06 0	--	208	158		
4N / 1W-14U 4 S 5-27-64	--	7.6	4.17	4.3 2.15	2.3 1.89	1.4 0.61	2 0.05	0	236 3.87	2.7 0.56	6 0.17	0.2 0.06	0 1	--	259	202		
				4.6	4.0	1.3	1		8.3	1.2	4					235		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in°F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfate	TDS	
Date sampled				CO ₃	Mg	Na	K	HCO ₃	SO ₄	Cl	NO ₃	B	Evap 105°C	Evap 105°C	Total hardness °C	Calculated CO ₃	
JOHNSON HYDRO UNIT																	
X0200																	
4N/ 2E-25J 1 S 5-28-64	--	7.9	145	69 3.44 4.1	26 2.14 26	61 2.65 32	6 0.15 2	0 2.39 30	146 4.83 60	232 0.85 11	30 0.8 0.01	0.8 0.11	--	513	279		
4N/ 3E-23G 1 S 6-19-64	--	7.6	1234	100 4.99 35	63 5.18 37	88 3.83 27	6 0.15 1	0 2.13 15	130 8.70 62	418 3.16 22	112 0.08 1	4.8 0.6 1	--	497	509		
4N/ 4E-14C 1 S 6-19-64	--	7.6	2740	205 10.23 31	140 11.51 35	247 10.74 33	8 0.20 1	0 2.0 7	144 16.05 50	771 13.65 4.2	484 0.24 1	15.0 0.30 1	--	899	856		
4N/ 4E-19M 1 S 6-19-64	--	7.8	1485	94 4.69 36	70 5.76 37	116 5.04 32	5 0.13 1	0 2.02 13	123 210 29	210 302 57	302 8.52 13	5.8 0.09 1	1.0 0.15 1	--	1014	1088	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1962/64
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents percent reac-tance				Mineral constituents in parts per million				Total hard-ness Equiv (°C)		
				Col-cum	Magn-e-sium	Sodium	Potass-i-um	Car-bon ate	Bor-on	Sulfate	Chlor-ide	Nitrate		
Date sampled				M g	N a	K	C O ₃	H C U ₃	S O ₄	F	S O ₂	Equiv (°C)		
BRISTOL HYDRO SUBUNIT X1000														
5N/12E-5H 1 S 5-13-64	--	7.4	17000	1008 50.30	196 16.12	3000 130.44	55 1.41	0 0.52	1846 38.443	5532 156.00	0.0 0.6	2.2 0.37	10.30 37	18 11894 11683
5N/14E-15H 1 S 5-11-64	--	8.0	450	30 1.50	8 0.66	53 2.30	5 0.13	0 2.26	138 0.77	50 1.41	12.0 0.19	0.6 0.4	3.7 301	108 298
6N/11E-30H 1 S 5-11-64	--	6.6	7500	467 23.30	64 5.26	1200 52.18	18 0.46	0 0.30	316 6.58	2670 15.29	6.2 0.10	2.4 2.86	24 24	1429 4,922
6N/12E-31A 1 S 5-13-64	77	8.0	4525	23 1.05	15 1.23	920 40.00	16 0.41	0 1.36	83 1.87	1400 39.48	10.0 0.16	3.9 3.40	4 4	4,779 3555
6N/12E-35F 1 S 5-12-64	88	7.5	4000	230 11.48	36 2.96	720 31.31	22 0.56	0 0.34	21 6.52	313 34.00	3.0 0.0	3.0 3.90	19 19	2526 2832
6N/13E-36D 1 S 5-11-64	84	7.5	1300	112 5.59	50 4.11	112 4.87	10 0.26	0 1.64	100 8.74	420 4.09	16.0 0.26	1.8 0.2	4.8 2.2	2740 723
6N/14E-31A 1 S 5-13-64	--	8.1	5000	29 1.45	6 0.49	74 3.22	6 0.15	0 2.56	156 0.87	42 1.49	11.0 0.18	2.0 0.60	36 36	97 332
6N/14E-31J 1 S 5-13-64	--	7.8	450	26 1.30	5 0.41	67 2.91	5 0.13	0 2.20	134 0.81	39 1.55	12.0 0.19	2.0 0.47	32 32	86 336
				27 2.7	9 6.1	61 3	3 1.1	3 5.0	11 1.1	46 2.9	33 4			30%

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
COLORADO RIVER BASIN DRAINAGE PROVINCE(X)

State well number	Temp when sampled in F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reductance value				Mineral constituents in parts per million						
				Calcium C. C. o	Magnesium M. g	Sodium N. a	Chloride C. l	Bicarbonate HCO ₃	Sulfate SO ₄	Nitrate NO ₃	Fluoride F.	Boron B.	Silica Si.	TDS Total dissolved solids	Hardness Eta (USGS Computed)			
X10AO																		
BRISTOL HYDRO SUBUNIT																		
X10AO																		
6N/14E-32E 1 S 5-12-64	--	8.1	4.30	2.2	0.58	0.13	0	1.45	34	35	15.0	2.0	0.33	29	288			
6N/14E-32M 1 S 5-11-64	83	7.6	5.60	2.6	0.58	0.13	0	2.38	0.71	0.24	0.23	0.23	0.24	6	283			
6N/14E-32M 2 S 5-11-64	--	8.1	5.00	1.20	0.58	0.15	0	1.32	50	74	8.4	2.6	0.38	31	344			
6N/14E-32N 1 S 5-11-64	--	8.1	5.70	1.9	0.41	0.13	0	1.44	44	50	12.0	3.0	0.40	33	352			
6N/11E-36D 1 S 5-12-64	73	7.8	6.90	1.9	0.50	0.13	0	1.42	55	75	8.6	2.8	0.37	36	325			
8N/12E-20B 1 S 5-13-64	76	8.0	7.50	2.5	0.33	0.09	0	2.33	1.15	2.12	0.14	2.12	0.14	2	376			
8N/12E-26L 1 S 5-12-64	76	8.0	7.50	1.25	0.25	0.09	0	2.36	0.92	1.41	0.19	1.41	0.19	4	374			
X10000																		
6N/14E-32E 1 S 5-12-64	--	8.1	4.30	2.2	0.58	0.13	0	1.45	34	35	15.0	2.0	0.33	29	288			
6N/14E-32M 1 S 5-11-64	83	7.6	5.60	1.20	0.58	0.15	0	2.16	1.04	2.09	0.14	0.14	0.14	3	344			
6N/14E-32M 2 S 5-11-64	--	8.1	5.00	1.9	0.41	0.13	0	1.44	44	50	12.0	3.0	0.40	33	352			
6N/14E-32N 1 S 5-11-64	--	8.1	5.70	1.9	0.33	0.09	0	1.42	55	75	8.6	2.8	0.37	36	325			
7N/11E-36D 1 S 5-12-64	73	7.8	6.90	1.50	0.58	0.13	0	2.05	82	56	16.0	1.4	0.86	31	446			
8N/12E-20B 1 S 5-13-64	76	8.0	7.50	1.25	0.25	0.09	0	2.95	80	84	1.4	2.0	0.30	28	440			
8N/12E-26L 1 S 5-12-64	76	8.0	7.50	1.07	0.08	0	0	4.84	1.67	2.37	0.02	0.02	0.02	27	440			
X10000																		

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

Shale well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in						Mineral constituents in								
				Calcium	Magnesium	Sodium	K	Na	Ca	Boron	Chloride	Nitrate	Fluoride	Boron	Sulfate	TDS		
Date sampled																Total hardness		
FENNER HYDRO SUBUNIT																Evap 10°C Evap 10°C Computed CaCO ₃		
X1000																		
BRISTOL HYDRO UNIT																X1000		
7N/15E-35R 1 S 5-13-64	81	8.2	600	26	1.30	3.48	0.18	7	0	159	68	10.0	0.8	0.49	32	372		
7N/16E-1A 1 S 5-13-64	--	7.9	410	39	4	4.3	5	0	121	1.42	1.92	0.16	0.11	29	386	131		
8N/16E-36R 1 S 5-13-64	--	7.7	380	39	0.33	1.87	0.13	5	0	1.98	0.50	0.09	0.02	0.11	29	292	114	
8N/17E-2D 1 S 5-13-64	--	8.1	750	1.95	0.25	1.61	0.13	5	0	1.37	23	35	6.3	0.2	0.19	33	269	110
11N/16E-1P 1 S 5- 7-64	68	7.4	195	49	6	4.1	3	59	59	0.48	0.99	0.10	0.10	0.19	33	228	110	
12N/16E-19C 1 S 5- 7-64	68	8.4	420	36	0.74	5.83	0.20	8	0	1.67	152	66	12.0	1.2	0.54	31	249	107
				1.80	0.74	0.74	0.20	2	2.74	3.16	1.86	0.19	0.23	2	31	522	107	
				1.39	1.17	9	71	2	34	40	23	2	2	2	31	524	107	

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per milliliter percent reaction value					Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron		
Date sampled				CO ₃	HCO ₃	K	Na	CO ₂	SO ₄	Cl	SiO ₂		TDS Evap 180°C	Total hardness Evap 105°C Computed		
LANE AIR HYDRO SU-UNIT																
11N/16F-1P 1 S 5- 7-64	68	7.4	195	2.0	0.16	0.70	0.10	0.16	0	6.1	16	0.33	20	4.2	160	58
11N/17E-5K 1 S 5- 7-64	--	8.0	650	3.2	2.22	3.17	0.20	7.3	0	1.47	5.4	0.38	0.07	0.16	4.0	154
12N/16F-19C 1 S 5- 7-64	68	8.4	420	3.6	0.74	1.80	0.74	0.08	0.27	0.183	2.5	0.12	0.04	0.16	4.0	4.84
12N/17E-4D 1 S 5- 7-64	--	8.1	430	3.6	0.99	1.80	0.99	1.57	0.10	0.190	1.5	0.31	0.71	0.16	4.0	191
13N/17E-18N 1 S 5- 7-64	--	8.1	380	3.0	1.50	0.99	1.50	0.10	0.2	0.165	2.5	0.15	0.15	0.16	4.0	4.31
PIUTE HYDRO UNIT																
X13AL																
11N/16F-1P 1 S 5- 7-64	68	7.4	195	2.0	0.16	0.70	0.10	0.16	0	6.1	16	0.33	20	4.2	160	58
11N/17E-5K 1 S 5- 7-64	--	8.0	650	3.2	2.22	3.17	0.20	7.3	0	1.47	5.4	0.38	0.07	0.16	4.0	154
12N/16F-19C 1 S 5- 7-64	68	8.4	420	3.6	0.74	1.80	0.74	0.08	0.27	0.183	2.5	0.12	0.04	0.16	4.0	4.84
12N/17E-4D 1 S 5- 7-64	--	8.1	430	3.6	0.99	1.80	0.99	1.57	0.10	0.190	1.5	0.31	0.71	0.16	4.0	191
13N/17E-18N 1 S 5- 7-64	--	8.1	380	3.0	1.50	0.99	1.50	0.10	0.2	0.165	2.5	0.15	0.15	0.16	4.0	4.31
X1300																
11N/16F-1P 1 S 5- 7-64	68	7.4	195	2.0	0.16	0.70	0.10	0.16	0	6.1	16	0.33	20	4.2	160	58
11N/17E-5K 1 S 5- 7-64	--	8.0	650	3.2	2.22	3.17	0.20	7.3	0	1.47	5.4	0.38	0.07	0.16	4.0	154
12N/16F-19C 1 S 5- 7-64	68	8.4	420	3.6	0.74	1.80	0.74	0.08	0.27	0.183	2.5	0.12	0.04	0.16	4.0	4.84
12N/17E-4D 1 S 5- 7-64	--	8.1	430	3.6	0.99	1.80	0.99	1.57	0.10	0.190	1.5	0.31	0.71	0.16	4.0	191
13N/17E-18N 1 S 5- 7-64	--	8.1	380	3.0	1.50	0.99	1.50	0.10	0.2	0.165	2.5	0.15	0.15	0.16	4.0	4.31
Total																

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in						parts per million equivalents per million percent reaction value						Mineral constituents in parts per million		
				Magnesium	Calcium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Nitrite	Fluoride	Boron	Sulfide	Total Evap (80°C) Evap (105°C) Computed	TDS
Date sampled				Mg	Ca	K	CO ₂	HCO ₃	SO ₄	Cl								
PIUTE HYDRO SURFACE																		
X13A0																		
1UN/2UE-13R 1 S	103	8.8	510	3	115	3	12	73	80	65	0.0	3.4	0.42	27	336	12		
5-13-64				0.15	5.00	0.08	0.40	1.20	1.67	1.83								
				3	94	2	8	24	33	36								
PIUTE HYDRO UNIT																		
X1300																		
1UN/2UE-13R 1 S	103	8.8	510	1	115	3	12	73	80	65	0.0	3.4	0.42	27	336	12		
5-13-64				0.15	5.00	0.08	0.40	1.20	1.67	1.83								
				3	94	2	8	24	33	36								

COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per million percent reaction value					Mineral constituents in parts per million								
				Copper	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	F. ^a	Boron	Sulfide	TDS	Hardness	Ca	Evap 105°C	Evap 105°C	Total	CO ₂
Date sampled				Mg	Mg	K	Na	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	Ud	F	B	SO ₂	CO ₂	CO ₃	CaCO ₃		
VIDAL HYDRO SUBUNIT																						
X15AU																						
1S/22E-1A 1 S 5-13-64	--	8.0	960	1.1	2	210	3	0	78	1.82	1.65	0.0	3.04	1.014	2.6	6.26	36					
				U.55	0.16	9.13	0.08	1.28	3.79	4.65	4.65											
				6	2	92	1	1.13	39	48												
1N/23W-9E 2 S 5-13-64	--	7.7	940	2.5	4	185	2	0	84	1.69	1.61	11.0	0.08	0.44	1.1	6.00	79					
				1.25	0.33	8.04	0.05	1.38	52	4.54	4.54	0.18										
				13	3	83	1	14	37	47												
COLORADO HYDRO UNIT																						
X1500																						

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silicate	Total Evap (80°C)	Evap (95°C)
Date sampled				Na	K	CO ₃	HCO ₃	SO ₄	Cl	F	B	SiO ₂	CO ₂	SO ₃	NO ₃	PO ₄	CaCO ₃
PALO VERDE HYDRO SUBUNIT X15D0																	
COLORADO HYDRO UNIT X1500																	
6S/22E-32K 1 S 5-14-64	--	8.0	2000	86	16	345	6	0	96	399	367	0.0	2.0	1.44	22	1260	281
				4.29	1.32	15.00	0.15	1.57	8.31	10.35							
				21	6	72	1	8	41	51							
6S/22E-36R 1 S 5-14-64	--	7.9	2300	38	8	470	7	0	122	437	420	4.5	3.0	1.07	27	1416	128
				1.90	0.66	20.44	0.18	2.00	9.10	11.84	0.07						
				8	3	88	1	9	40	51							

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reaction value				Mineral constituents in parts per million					
				Calcium C _o	Magnesium M _g	Sodium N _a	Chloride Cl ₁	Boron B	Sulfate SO ₄	Nitrate NO ₃	Fluoride F	Chloride Cl ₂	Sulfate SO ₃	Nitrate NO ₂	Fluoride F	Total hardness °F	TDS °C
Date sampled																	
ARROYO SECO HYDRO SUBUNIT X15E0																	
COLORADO HYDRO UNIT X1500																	
11S/20E-15E 2 S	--	7.9	490	7.2 3.59	1.07 1.19	1.13 0.83	0.2 0.05	0 4.05	296 0.29	1.4 0.5	1.0 0.28	0.0 0.13	0.2 2	0.15 2	26 282	233 310	
2- 4-64				65	19	15	1	87	5	5							
5-14-64	--	8.1	500	7.3 3.64	1.40 1.24	1.17 0.83	0.3 0.08	0 0.14	306 5.02	1.3 0.39	1.4 0.39	0.6 0.14	0.1 0.7	0.12 2	28 322	252 326	

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos of 25°C)	Mineral constituents in parts per million equivalents per cent reaction value						Mineral constituents in parts per million							
				Mg	K	Na	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	Total Evap 180°C	Total Evap 105°C	
Date sampled																	
PALEN HYDRO SUBUNIT																	
5S/15E-2/C 1 S	--	8.1	700	2.8	4	1.25	3	0	138	1.16	.86	2.3	4.0	0.63	2.2	442	87
5-15-64				1.40	0.33	5.44	0.008	1	32	2.26	2.42	2.43	0.04				459
5S/15E-2/K 1 S	--	8.2	450	1.2	2	95	2	0	215	2.3	1.6	22.0	3.0	0.35	19	290	38
5-11-64				0.60	0.16	4.13	0.005	1	73	3.52	0.48	0.45	0.35				300
5S/16E-5B 1 S	7.7	8.2	800	1.0	2	173	3	0	118	1.57	.96	2.2	3.0	0.65	21	488	33
5-15-64				0.50	0.16	7.52	0.008	1	1.93	3.27	2.71	0.04					526
CHUCKWALLA HYDRO UNIT																	
X1780																	
5S/15E-2/C 1 S	--	8.1	700	2.8	4	1.25	3	0	138	1.16	.86	2.3	4.0	0.63	2.2	442	87
5-15-64				1.40	0.33	5.44	0.008	1	32	2.26	2.42	2.43	0.04				459
5S/15E-2/K 1 S	--	8.2	450	1.2	2	95	2	0	215	2.3	1.6	22.0	3.0	0.35	19	290	38
5-11-64				0.60	0.16	4.13	0.005	1	73	3.52	0.48	0.45	0.35				300
5S/16E-5B 1 S	7.7	8.2	800	1.0	2	173	3	0	118	1.57	.96	2.2	3.0	0.65	21	488	33
5-15-64				0.50	0.16	7.52	0.008	1	1.93	3.27	2.71	0.04					526

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction						Mineral constituents in parts per million					
			Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fu-ride	Silica	T.D.S.
Date sampled	pH	Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	SiO ₂	Evap. 80°C	Total hardness as CaCO ₃	SiO ₂	
SAN GORGONIO HYDRO SUBUNIT X19C1														
3S/ 1E-7L 1 S 10- 8-63	--	8.1	361	4.0	0.31	0.21	0.03	0.20	0.10	1.71	5	0.39	0	--
				2.0	56	0.66	0.18	0.25	0.6	2.80	3	0.11		
						0.31	0.25							
SAN GORGONIO HYDRO SUBAREA X19C2														
2S/ 1F-17L 1 S 10- 8-63	--	7.5	341	4.1	0.5	0.35	0.05	0	1.65	1.6	7	1.0	0.3	0
				2.0	61	0.30	0.27	0.10	0.83	2.70	0.33	0.20	0.02	--
						0.35	0.27	0.1		0.83	0.10	0.6	0.1	
WHITEWATER HYDRO UNIT X1900														
3S/ 1E-33J 1 S 10- 8-63	--	7.4	339	4.4	2.0	0.35	0.03	0	1.65	2.0	7	2.0	0.3	0.20
				2.0	65	0.82	0.24	0.10	0.81	0.42	0.13	0.6	0.03	--
						0.35	0.24	0.1		0.81	0.13		0.1	

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reagent value						Mineral constituents in parts per million							
				Calcium C _a	Magnesium M _g	Sodium N _a	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Sulfur S	Total Evap. Ba(OH) ₂ Compounds	
COACHELLA HYDRO SUBUNIT GARNET HILL HYDRO SUBAREA X1900																	
2S / 4E-13K 1 S 10- 7-63	78	7.7	154.0	125 6•24 4.0	36 2•96 19	139 6•04 39	12 0•31 2	0 4•51 29	275 9•58 63	460 1•21 8	43 0•0 1•21	0•0 0•8 0•04	0•0 2•0 0•03	0•0 0•04 0•04	996 966 20	460 966 430	
2S / 4E-15R 1 S 3-10-64	--	7.8	665	7.0 3•49 4.7	15 1•23 16	59 2•57 34	8 0•20 3	0 3•61 49	220 3•29 44	156 0•51 7	18 2•0 0•03	0•0 0•8 0•04	0•0 0•04 0•04	20 20 20	236 459 430		
2S / 4E-26C 1 S 3-10-64	--	7.8	685	5.5 2•74	13 1•07	82 3•57	9 0•23	0 3•61	220 3•25	156 0•62 8	22 6•0 0•10	0•7 0•7 0•06	0•0 0•7 0•06	22 22 22	191 430 430		
3S / 5E-17M 1 S 10- 8-63	82	7.6	1261	5.8 2•89 2.4	13 1•07 9	176 7•65 64	14 0•36 3	0 1•51 13	92 8•33 69	400 3•20 18	78 1•0 0•02	1•0 0•02 0•02	0•50 0•50 0•50	-- -- --	198 788 788		
3S / 5E-18M 1 S 10- 8-63	84	7.6	658	4.8 2•40 3.9	7 0•58 9	68 2•96 4.8	8 0•20 3	0 1•51 13	137 2•25 38	150 3•12 52	21 0•59 10	0•0 0•03 0•03	1•1 0•0 0•0	0•10 0•10 0•10	-- -- --	149 371 371	
3S / 5E-18R 1 S 10- 8-63	80	7.5	11227	8.0 3•99	19 1•56	122 5•30	13 0•33	0 1•51	92 8•33 13	400 1•49 73	53 2•0 13	0•8 0•8 0•03	0•10 0•10 0•10	-- -- --	278 735 735		
3S / 5E-20D 1 S 10- 8-63	81	7.5	1050	7.0 3•49	20 1•64	110 4•78	10 0•26 3	0 1•51 14	92 7•50 14	360 1•41 72	50 2•0 13	0•10 0•10 0•03	0•10 0•10 0•03	-- -- --	257 668 668		

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reiontance value				Mineral constituents in parts per million											
				Calcium	Magnesium	Sodium	Potassium	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silicate	TDS	Total hardness at 80°C	Equiv TDS	Total hardness at 05°C	Calculated CaCO ₃
Date sampled				CO ₃	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	F	B	SiO ₂					
COACHELLA HYDRO SUBUNIT																			
2S/ 5E-3U 1 S	84	7.5	1247	93	21	132	10	0	146	380	67	6.0	1.1	0.80	--	855	319		
10- 8-63				4.64	1.73	5.74	0.26	2.39	1.89	0.10									
				38	14	46	2	19	7.91	15	1								
2S/ 5E-3U 1 S	120	9.0	1290	25	0	267	4	9	16	435	102	4.6	7.0	1.06	28	783			
10-11-63				1.25	10	11.61	0.10	0.30	0.26	9.06	2.88	0.07	2.72	1					
				10	90	1	2	2	2	23	1								
2S/ 5E-3U 1 S	120	8.1	1460	41	0	305	4	0	28	526	131	0.0	9.0	1.52	13	882	63		
10- 9-63				2.05	13	13.26	0.10	0.46	10.95	3.69									
2S/ 5E-3U 2 S	132	8.4	1640	41	0	360	6	--	26	598	159	0.0	8.0	1.66	19	890			
10-11-63				2.05	11	15.65	0.15	0.43	12.45	4.48	26								
2S/ 5E-3U 3 S	116	7.8	1480	36	0	300	5	0	31	526	111	0.0	9.0	1.56	20	1024			
10-11-63				1.80	12	13.04	0.13	0.51	10.95	3.13									
				10	87	1	3	3	75	21									
2S/ 5E-3U 4 S	112	7.8	1320	26	2	275	9	0	83	433	103	1.4	3.0	0.69	10	904			
10-11-63				1.30	10	11.96	0.23	1.36	9.02	2.90	22								
2S/ 5E-3U 5 S	130	8.1	1575	41	4	315	6	0	65	524	131	4.6	5.0	1.36	27	1024			
10-11-63				2.05	13	13.70	0.15	1.07	10.91	3.69	23								
2S/ 5E-3U 6 S	132	8.6	1850	52	0	380	7	6	15	640	170	0.0	8.0	1.54	21	1091			
10-15-63				2.59	13	16.52	0.18	0.25	13.32	4.79	26								

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity value					Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfuric acid	Total dissolved solids (mg/1000°C) as CaCO ₃
Date sampled				Na	Mg	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	S _o 2		
COACHELLA HYDRO SUBUNIT																
MISSION CREEK HYDRO SUBAREA																
25/ 5E-30K 7 S	132	7.9	1525	4.7	0	310	0.4	0	4.3	536	136	8.3	3.0	1.14	19	1086
10-15-63				2.35	0.10	13.48	0.10	0.70	11.16	3.84	0.13	0.13				118
				15	85	1		4	70	24	1					1086
25/ 5E-30K 8 S	122	8.2	1320	33	0	275	5	0	4.5	472	94	7.8	4.0	1.19	19	928
10-15-63				1.65	0.13	11.96	0.13	0.74	9.83	2.65	0.13					83
				12	87	1		6	74	20	1					933
25/ 5E-30K 9 S	125	7.3	1900	44	1	405	8	0	4.6	599	221	6.0	6.0	1.14	19	1324
10-15-63				2.20	0.08	17.61	0.20	0.75	12.47	6.23	0.10					114
				11	88	1		4	64	32	1					1333
25/ 5E-30UL 1 S	90	8.1	1192	22	6	225	4	6	3.1	400	89	0.0	5.4	0.80	--	80
10- 8-63				1.10	0.49	9.78	0.10	0.20	0.51	8.33	2.51					
				10	85	1		2	72	22						
25/ 5E-31H 1 S	94	8.0	1220	55	11	203	10	--	9.9	415	76	0.0	1.6	0.40	12	832
10- 8-63				2.74	0.90	8.83	0.26	1.62	8.64	2.14						182
				22	7	69	2	13	70	17						833
25/ 5E-32B 1 S	168	8.7	1470	38	0	303	9	6	20	522	118	3.2	9.0	1.39	48	1086
10-11-63				1.90	13.17	0.23	0.20	0.33	10.87	3.33	0.05					95
				12	86	2		1	74	23						1067
25/ 5E-32D 1 S	120	8.1	580	12	0	110	4	0	54	168	33	0.0	4.0	0.32	15	362
10-15-63				0.60	4.78	0.10	0.89	0.89	3.50	0.93						30
				11	87	2		17	66	17						373
25/ 5E-32E 1 S	136	8.7	1390	26	0	283	7	9	13	484	99	0.0	9.0	1.34	43	962
10-14-63				1.30	12.30	0.18	0.30	0.21	10.08	2.79	21					65
				9	89	1		2	75							968
																968

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per thousand percent reactivity				Mineral constituents in parts per million									
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	TDS				
Date sampled				Na	Mg	K	CO ₃	HCO ₃	SO ₄	F	NO ₃	Ca	Total Esq (05°C) Esq (05°C) Computed				
COACHELLA HYDRO SUBUNIT																	
MISSION CREEK HYDRO SUBUNIT																	
X1900																	
2S/ 5E-32E 2 S	130	9.0	1380	33	0	275	6	13	476	93	0.0	9.0	1.28	4.3	9446	83	
10-11-63				1.65	12	11.96	0.15	0.43	0.18	9.91	2.62				955		
2S/ 5E-32F 1 S	164	8.7	1300	31	0	273	8	5	22	484	96	0.0	9.0	1.17	4.5	954	78
10-14-63				1.55	11	11.87	0.20	0.17	0.36	10.08	2.71						
2S/ 5E-32F 3 S	168	8.1	1600	43	0	320	9	0	3	706	20				963		
10-15-63				2.15		13.91	0.23		0.39	533	154					1156	108
2S/ 5E-32G 1 S	166	8.8	1500	37	0	295	8	10	0.64	11.10	4.34	0.0	1.22	4.6			
10-11-63				1.85		12.83	0.20	0.33	0.26	10.76	2.7	1.0					
2S/ 5E-32G 2 S	158	8.8	1350	35	0	285	8	10	4	517	116	0.0	9.0	1.47	5.0	1068	93
10-11-63				1.75	12	12.39	0.20	0.33	0.23	10.33	2.76					1138	
2S/ 5E-32G 4 S	--	8.8	1440	30	0	287	7	13	0.26	10.76	3.27						
10-14-63				1.50		12.48	0.18	0.43	0.10	10.35	2.96					1068	
2S/ 5E-32H 1 S	120	8.0	1770	59	0	363	10	0	41	622	171	3.2	7.0	1.43	2.6	1250	147
10-10-63				2.94	15	15.78	0.26		0.67	12.95	4.82	0.05				1000	
2S/ 5E-32H 2 S	138	8.5	1575	35	0	335	9	4	25	552	147	4.1	0.0	1.46	4.5	1283	88
10-14-63				1.75	11	14.57	0.23	0.13	0.41	11.49	4.15	0.07				1155	
										71	26						

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity value						Mineral constituents in parts per million								
				Calcium C _o	Magnesium M _g	Sodium N _a	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂			
WHITEWATER HYDRO UNIT X1900																		
COACHELLA HYDRO SUBUNIT MISSION CREEK HYDRO SURFACE X19D0				230	8	6	23	534	151	17.0	9.0	1.39	4.0	115.8	123			
2S/ 5E-32K 1 S	145	8.7	163.0	4.9	2.45	0.20	0.1	0.38	11.12	4.26	0.27				114.7			
10-11-63				15	15	84	1	2	69	26	2							
2S/ 5E-32L 1 S	130	8.7	136.0	2.5	0	290	9	19	497	101	0.0	9.0	1.40	4.8	103.2			
10-11-63				9	1.25	61	0.23	0.27	0.31	10.35	2.85				6.3			
2S/ 5E-32L 2 S	158	8.8	145.0	3.5	0	290	7	7	499	107	0.0	9.0	1.19	4.6	99.8			
10-11-63				12	1.75	61	0.18	0.23	0.26	10.39	3.02				88			
2S/ 5E-32P 1 S	--	7.9	118.0	5.8	7	222	9	0	129	436	1.4	3.0	0.60	24	100.9			
10- 8-63				22	2.89	65	0.23	0.23	2.11	9.08	1.80	0.02			88.4			
2S/ 5E-32R 1 S	112	8.5	153.0	3.8	0	303	7	3	31	514	123	5.5	9.0	1.44	38			
10-14-63				12	1.90	17	0.18	0.10	0.51	10.70	3.47	0.09			106.4			
2S/ 5E-32R 2 S	112	8.7	154.0	3.1	0	325	6	7	27	523	126	1.8	10.0	1.55	27			
10-14-63				10	1.55	13	0.15	0.23	0.44	10.89	3.55	0.03			105.7			
3S/ 4E-20 1 S	84	7.8	555	53	8	55	8	0	113	166	16	1.4	0.6	0.09	18			
10- 8-63				45	2.64	66	0.20	0.20	1.85	3.46	0.45	0.02			386			
3S/ 4E-20 1 S	84	8.1	560	58	8	56	9	0	131	165	17	1.8	0.6	0.09	13			
10-10-63				11	0.66	43	0.23	0.23	2.15	3.44	0.48	0.03			424			
				47	11	39	4		35	56	8				393			

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance						Mineral constituents in parts per million									
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silicate	TDS	Total hardness		
Date sampled				Mg	Mg	Na	K	CO ₃	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SO ₂	Extr. CaCO ₃	Extr. CO ₂	CO ₂
COACHELLA HYDRO SUBUNIT																			
MISSION CREEK HYDRO SUBAREA																			
X19D0																			
3S/ 4E-11L 2 S	--	8.2	580	57	8	55	9	0	146	164	14	0.9	0.6	0.14	13	424	175		
10- 4-63			2.84	0.66	2.39	0.23	0	2.39	3.41	0.39	0.01	0.01							
			46	11	39	4		39	55	6									
3S/ 4E-11K 1 S	--	7.9	580	51	9	64	7	0	185	107	36	3.5	0.7	0.04	22	393			
3-10-64			2.54	0.74	2.78	0.18		3.03	2.23	1.02	0.06								
			41	12	45	3		48	35	16	1								
3S/ 4E-11L 1 S	--	7.8	424	35	4	49	6	0	156	30	40	6.0	0.4	0.02	23	391			
3-10-64			1.75	0.33	2.13	0.15		2.56	0.62	1.13	0.10								
3S/ 4E-13N 1 S	--	7.9	315	27	3	40	5	0	124	48	9	0.9	0.6	0.11	16	250			
10- 8-63			1.35	0.25	1.74	0.13		2.03	1.00	0.25	0.01								
			39	7	50	4		62	30	8									
3S/ 4E-15R 1 S	--	8.1	373	6	3	63	2	6	79	60	21	2.0	0.4	0	--	270			
10- 8-63			0.30	0.25	2.74	0.05	0.20	1.29	1.25	0.59	0.03								
			9	7	82	1	6	38	37	18	1								
3S/ 5E- 58 1 S	107	8.9	1420	38	0	295	7	9	24	528	107	0.0	8.0	1.55	30	211			
10-15-63			1.90	1.90	12.83	0.18	0.30	0.39	10.99	3.02									
			13	86	86	1	2	3	75	21									
3S/ 5E- 6D 1 S	--	7.9	789	42	6	128	8	0	151	243	21	2.5	1.2	0.10	21	520			
3-10-64			2.10	0.49	5.57	0.20		2.47	5.06	0.59	0.04								
			25	6	67	2		30	62	7									
3S/ 5E- 6L 1 S	--	7.8	1241	82	12	180	11	0	117	466	51	5.0	0.8	0.14	20	547			
3-10-64			4.09	0.99	7.83	0.28		1.92	9.70	1.44	0.08								
			31	8	59	2		15	74	11									
WHITEWATER HYDRO UNIT																			
X1900																			

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1933/64
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent						Mineral constituents in parts per million					
				Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfate	Total hardness
Date sampled				Mg	Na	K	CO ₂	HCO ₃	SO ₄	Cl	NO ₃	F	B	CaCO ₃	
COACHELLA HYDRO SUBUNIT MISSION CREEK HYDRO SUBAREA X19D2 X19D2 X19D2															
3S/ 5E-7C 1 S 3-10-64	--	7.8	1208	74	180	12	0	217	393	50	3.0	0.8	0.22	26	860
3S/ 5E-7D 1 S 3-10-64	76	7.7	600	34	88	0.31	3.56	8.18	1.41	0.05	0.5	0.8	0.07	18	864
3S/ 5E-7E 1 S 3-10-64	--	8.2	650	37	100	7	0	144	166	14	0.5	0.01	0.39	27	110
3S/ 5E-7F 1 S 3-10-64	--	7.8	832	64	105	9	0	161	178	15	6.0	0.9	0.06	21	406
3S/ 5E-7F 2 S 3-10-64	--	7.9	912	69	115	10	0	2.36	2.64	0.42	0.10	0.10	0.12	38	406
3S/ 5E-8J 1 S 10-8-63	87	7.8	1160	34	231	6	0	183	268	40	9.0	0.8	0.15	24	117
3S/ 5F-8J 2 S 10-15-63	85	7.4	1270	39	1	251	6	--	81	432	76	0.0	7.0	1.37	11
3S/ 5E-8J 3 S 10-15-63	85	7.8	1200	40	2	237	6	0	88	415	72	2.8	5.0	0.95	15
				2.00	0.16	10.30	0.15	1.44	8.64	2.03	0.05				836
				16	1	82	1	12	71	17					108
															839

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled	pH	Mineral constituents in						Mineral constituents in								
			Specific conductance (micro-mhos at 25°C)	Calcium C o	Magnesium Mg	Sodium Na	Potassium K	Carbon dioxide CO ₂	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silicate SiO ₂	TDS Evap BOC hardness	Total solids Evap 105°C
COACHELLA HYDRO SUBUNIT MIRACLE HILL HYDRO SUBAREA X1903																	
2S/ 5E-22R 3 S 10-15-63	146	8.7	1440	25	0	298	7	8	15	504	110	0.0	10.0	1.51	4.2	1032	63
2S/ 5F-33M 2 S 10-14-63	114	7.7	1775	56	0	12.96	0.18	0.27	0.25	10.49	3.10	22	1.30	25	1013	140	
2S/ 5E-33M 3 S 10-14-63	105	8.6	1640	48	0	375	8	0	53	558	208	17.0	7.0	2.7	1266	1281	
2S/ 5E-33P 2 S 10-11-63	130	8.7	1500	40	0	16.31	0.20	0.87	11.62	5.87	62	32	1.25	34	1192	120	
3S/ 5E-10H 2 S 10-14-63	176	8.4	1790	52	0	333	7	4	25	549	173	5.5	9.0	0.09	1176	1176	
3S/ 5F-10R 1 S 10- A-63	89	8.0	1400	17	6	14.48	0.18	0.13	0.41	11.43	4.88	2.9	1	24	986	100	
3S/ 5E-10R 3 S 10-14-63	123	8.3	2600	117	0	12.74	0.15	0.20	0.39	10.45	3.16	22	1.0	1.53	24	997	
3S/ 5E-11M 3 S 10-14-63	178	8.5	1750	48	0	365	10	4	22	611	178	0.0	7.0	2.14	4.8	1256	130
3S/ 5E-11R 3 S 10-14-63	123	8.3	2600	584	21	15.87	0.26	0.13	0.36	12.72	5.02	28	22	1.29	6	976	67
3S/ 5E-11M 3 S 10-14-63	178	8.5	1750	40	0	12.83	0.26	0.16	1.16	10.37	3.27	22	1	2.64	4.7	1866	292
																1322	120
																1301	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reionization value				Mineral constituents in parts per million										
				Calcium C o	Magnesium M g	Sodium N a	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Sulfur S O ₂	Total hardness as CaCO ₃		
COACHELLA HYDRO SUBUNIT																		
MIRACLE HILL HYDRO SUBAREA																		
X19D3																		
3S / 5F-14C 1 S 10-14-63	130	8.5	2010	6.6	0	4.00	1.1	2	21	6.78	1.98	3.2	9.0	2.12	31	1406		
				3.29	16	17.39	0.28	0.07	0.34	14.12	5.58	0.05				165		
						83	1		2	70	28					1411		
3S / 5E-14G 1 S 10-14-63	132	8.3	1640	4.8	0	3.40	9	1	30	5.66	1.55	0.0	9.0	1.89	26	1156		
				2.40		14.78	0.23	0.03	0.49	11.78	4.37					120		
				14		85	1		3	71	26					1171		
INDIO HYDRO SUBAREA																		
5S / 6E-13D 1 S 7-13-64	--	7.8	300	3.3	7	1.9	3	0	160	1.14	6	0.0	0.4	0.02	--	172		
				1.65	53	0.83	0.08		2.62	0.29	0.17					112		
						18	26	3	85	9	6					161		
5S / 6F-14P 1 S 7-12-64	--	7.5	280	2.8	5	2.3	3	0	122	2.2	11	0.0	0.1	0.09	--	154		
				1.40	48	0.41	1.00	0.08	2.00	0.46	0.31					91		
						35	3		72	17	11					152		
WHITEWATER HYDRO UNIT																		
X1900																		

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reaction value				Mineral constituents in parts per million						
				Calcium C _o	Magnesium M _g	Sodium N _a	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Sulfur S _o			
BORREGO HYDRO SUBUNIT																		
BORREGO HYDRO SUBUNIT				X22A0	X22A3	X22A0	X22A3											
10S / 6E-17K 1 S 1-29-64	80	7.9	1060	9.3 4.64 41	1.73 0.23 15	108 4.70 42	9 0.23 2	0 3.52 32	215 5.70 51	274 1.89 17	6.7 0.04	0.19	--	720	319			
10S / 6E-24C 1 S 1-29-64	--	7.8	1330	8.1 4.04 31	3 0.25 2	194 8.44 65	10 0.26 2	0 0.48 4	29 330 4	187 5.27 54	1.0 0.02 4.2	0.35	--	681 883 215				
10S / 6E-23D 1 S 1-20-64	72	7.7	2165	26.9 13.42 1.57	4.6 3.78 16	144 6.26 27	6 0.15 1	0 2.92 13	178 9.06 40	435 5.16 23	183 5.61 25	0.6 0.19 --	1822	861				
10S / 6E-15N 1 S 1-29-64	--	8.2	998	6.9 3.44 3.5	8 0.66 7	129 5.61 57	0 0.20 2	0 1.56 16	95 6.31 64	303 1.95 20	6.9 0.01 0.01	0.8 0.19 --	1519 682 634	205				
ANZA BORREGO HYDRO UNIT																		
ANZA BORREGO HYDRO UNIT				X2200														

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reaction				Mineral constituents in parts per million				
				Calcium C _o	Magnesium M _g	Sodium N _a	K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Evap. B/C Evap. I/C Hardness as CaCO ₃ Compounded
JACUMBA HYDRO SUBUNIT																
17S/ 7E-30B 1 S	--	7.1	513	1.60	1.07	59	13	0	1.98	12	60	3.5	0.7	0.07	53	330
	6-26-64			30	20	2.57	0.03	0	3.25	0.25	1.69	0.06	1			332
JACUMBA HYDRO SUBAREA																
17S/ 8E-32FS1 S	--	8.0	2959	240	89	325	14.13	5	0	220	707	510	7.0	1.14	--	2225
	1-30-64			11.98	7.32	14.13	0.13	0	3.61	14.72	14.38	0.11				966
18S/ 8E-7JS3 S	98	9.5	499	2	0	99	1	20	48	31	81	0.5	4.0	0.52	--	1994
	1-30-64			0.10	4.30	0.03	0.67	0.67	0.79	0.65	2.28	0.01				316
18S/ 8E-8K 3 S	68	7.8	1271	100	28	125	3	0	195	228	166	2.0	1.3	1.00	--	263
	1-30-64			4.99	2.30	5.44	0.08	0	3.20	4.75	4.68	0.03				841
				39	18	4.2	1		25	38	37					365
ANZA BORREGO HYDRO UNIT																
X22G0																
X22G1																
X22G2																
																5
																263
																841
																365
																750

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents				Parts per million equivalents per million percent reaction value				Mineral constituents in parts per million						
				Calcium	Magnesium	Sodium	K	Carbon dioxide	Chloride	Sulfate	Nitrate	Boron	Silicate	TDS	Total hardness	TDS		
IMPERIAL HYDRO UNIT																		
X2300																		
IMPERIAL HYDRO SUBUNIT				X23AU				X2300				X2300						
145/720E- 9A 1 S 5-70-64	--	7.7	3000	116 5.79	12 0.99	590 25.65	0.26 1	0	67 1.10	275 5.73	897 25.30	0.0 79	1.8 18	1.8 1.8	1.8 1.8	1.8 1.8		
165/19F-36P 1 S 7- 6-64	71	8.0	1240	61 3.04	52 4.28	137 5.96	4 0.10	0	167 2.74	326 6.79	129 3.64	0.2 0.03	0.2 28	0.2 0.2	0.2 0.2	0.2 0.2		
165/19F-36P 2 S 7- 6-64	76	7.2	1410	53 2.64	42 3.45	200 8.70	9 0.23	0	90 1.48	468 0.10	6.0 13.20	0.1 0.1	0.1 0.1	0.31 0.1	0.31 0.1	0.31 0.1		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents percent reaction value								Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Baron	Sulfate	TDS
Date sampled				Ca	Mg	Na	K	CO ₂	HCO ₃	SO ₄	Cl	NO ₃	F	B	SO ₂	Total Evap (80°C) as SO ₂
AMOS-OGILBY HYDRO UNIT X2600																
9S/13E-7M 1 S 2-21-64	140	6.5	7520	245 12.23	57 4.69	1380 60.00	77 1.97	0 12.67	773 3.56	171 63.17	2240 79	7.4 0.12	3.5 0.12	6.60	66	4670
13S/19E-330 1 S 12- 9-63	86	7.6	1977	53 2.64	3 0.25	3.68 16.00	6 0.15	0 1.54	94 5.08	244 12.13	430 65	3.4 0.05	0.96 0.27	24 65	1185	145
																1182

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in°F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity value						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfate	TDS	Total hardness
Date sampled				Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	CaCO ₃ Computed	
LOWER SANTA ANA R. HYDRO SUBUNIT YOLAO EAST COASTAL PLAIN HYDRO SUBAREA YOLAO																	
SANTA ANA RIVER HYDRO UNIT YO100																	
4S/ 9W-16G 2 S 3-30-64	--	7.7	1168	--	--	--	--	0	185	280	99	--	--	--	--	--	412
4S/ 9W-19D 3 S 1-15-64	--	7.7	1050	127	23	57	0	248	191	89	22	0.7	0.01	--	666	666	
				6.34	1.89	2.48	0.13	4.06	3.98	2.51	0.35						
				5.8	1.7	2.3	1	3.7	3.7	2.3	3						
6-16-64	--	7.7	965	126	26	62	5	0	250	192	92	22	0.6	0.08	--	670	422
				6.29	2.14	2.70	0.13	4.10	4.00	2.59	0.35						
				5.6	1.9	2.4	1	3.7	3.6	2.3	2						
4S/ 9W-22M 2 S 5-19-64	--	7.8	928	96	27	60	2	0	228	143	74	35	0.4	0.06	--	579	351
				4.79	2.22	2.61	0.05	3.74	2.98	2.09	0.56						
				5.0	2.3	2.7	1	4.0	3.2	2.2	6						
4S/ 9W-27F 1 S 3-17-64	--	7.7	1006	109	39	49	2	0	258	210	66	39	0.4	0.06	15	700	433
				5.44	3.21	2.13	0.05	4.23	4.37	1.86	0.63						
				5.0	3.0	2.0		3.8	3.9	1.7	6						
3-24-64	--	7.6	945	97	33	47	2	0	207	170	64	38	0.3	0.01	--	591	378
				4.84	2.71	2.04	0.05	3.39	3.54	1.80	0.61						
				5.0	2.8	2.1	1	3.6	3.8	1.9	7						
8-19-64	--	7.6	1050	124	33	45	2	0	236	201	77	43.0	0.3	0.10	--	707	445
				6.19	2.71	1.96	0.05	3.87	4.18	2.17	0.69						
				5.7	2.5	1.8		3.5	3.8	2.0	6						
4S/ 9W-28J 1 S 3-24-64	--	7.7	1109	119	41	44	2	0	267	178	86	56	0.3	0.01	--	711	466
				5.94	3.37	1.91	0.05	4.38	3.71	2.43	0.90						
				5.53	3.0	1.7		3.8	3.2	2.1	8						

TABLE E-I
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				Mineral constituents in				Mineral constituents in				
				Calcium C _o	Magnesium M _g	Sodium N _a	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Barium Ba	Sulfur S _o	TDS as mg/L
LOWER SANTA ANA R. HYDRO SUBUNIT YOLAO EAST COASTAL PLAIN HYDRO SUBAREA YO1AO																
4S/ 9W-28J 1 S	--	7.7	1110	11.9	4.2	4.7	0.05	0	276	18.6	95	47.0	0.06	--	734	
9-22-64				5.94	3.45	2.04	0.18	4.52	3.87	2.68	0.76	6			470	
4S/ 9W-31B 1 S	--	7.6	546	--	--	--	--	0	216	4.9	35	--	--	--	674	
4-15-64								3.54	1.02	0.99						
5-18-64	--	7.4	588	6.6	10	3.8	0	212	4.9	40	8.7	0.5	0.06	--	322	
				3.29	0.82	1.65	0.08	3.47	1.02	1.13	0.14				206	
9-23-64	74	7.7	616	7.3	12	3.3	0	211	5.5	48	15.5	0.4	0.01	23	319	
				3.64	0.99	1.43	0.08	3.46	1.15	1.35	0.25				319	
4S/10W-3P 2 S	--	7.6	1010	11.4	2.2	6.4	5	0	242	18.2	93	12.0	0.6	0.10	--	377
9-21-64				5.69	1.81	2.78	0.13	3.97	3.79	2.62	0.19				232	
4S/10W-13M 1 S	--	8.0	1125	10.8	2.3	1	0.15	3.8	3.36	2.5	2				367	
2-20-64				5.39	1.89	4.35	0.15	0.15	0.15	2.98	5.79	2.68	0.08		367	
9-22-64	--	7.5	1110	9.7	2.5	9.5	0.15	0.15	0.15	2.75	5.66	2.79	0.09	--	706	
				4.84	4.3	4.13	0.15	0.15	0.15	2.75	5.66	2.79	0.09		706	
4S/10W-14D 2 S	--	7.4	924	--	--	--	--	0	231	18.6	74	--	--	--	345	
4-15-64								3.79	3.87	2.09					683	

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reacidence value				Mineral constituents in parts per million										
				Calcium C _a	Magnesium M _g	Sodium N _a	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silicate SiO ₂	Total dissolved solids TDS _{total}	Total hardness TDS _{hardness}	Total alkalinity TDS _{alkalinity}
LOWER SANTA ANA R. HYDRO SUBUNIT YOLAO EAST COASTAL PLAIN HYDRO SUBAREA YOLAO																		
4S/10W-14H 2 S 4-10-64	--	8.2	941	--	--	--	--	0	241	165	74	--	--	--	--	--	--	--
4S/10W-15B 2 S 2-20-64	--	7.8	1000	5.89	1.81	22	61	0	229	78	14	0.6	0.11	--	--	658	385	385
4S/10W-18C 2 S 8-18-64	--	7.6	852	5.44	1.32	16	46	0	201	4.18	2.20	0.23	2	2	2	611	522	338
4S/10W-24D 2 S 3-17-64	--	7.8	1093	--	--	2.00	0.13	0	266	101	71	24.0	0.5	0.10	--	--	--	503
4S/10W-24D 3 S 4-16-64	--	7.5	885	5.44	1.56	19	50	0	208	2.00	0.39	0.39	23	4	4	--	--	--
4S/10W-24J 1 S 5-19-64	--	7.7	494	2.84	0.82	10	35	0	208	4.8	27	2.5	0.5	0.05	--	274	183	183
4S/10W-25N 1 S 3-17-64	--	7.8	1048	--	--	1.52	0.08	0	3.41	1.00	0.76	0.04	1	1	1	--	--	285
4S/10W-28M 1 S 6-19-64	--	7.8	960	5.69	2.14	26	59	0	287	144	79	29	0.47	0.12	--	630	392	392
																		597

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled (in °F)	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reacidity value						Mineral constituents in parts per million			
				Calcium	Magnesium	Sodium	Potassium	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron
Date sampled				Na	K	Na	CO ₃	HCO ₃	SO ₄	NO ₃	F	SiO ₂	Total hardness as CaCO ₃
LOWER SANTA ANA R. HYDRO SUBUNIT YOLAO EAST COASTAL PLAIN HYDRO SUBAREA YOLAO													
4S/1UW-29M 1 S 10- 2-63	77	7•9	1037	--	--	--	--	--	303	--	84	--	--
4S/1UW-31F 1 S 6-16-64	--	8•1	804	106 5•29	18 1•48	2•00 17	0•13 22	0	270	123	1•9	0•06	0•03
4S/10W-33F 1 S 4-16-64	--	7•5	962	121 6•04	21 1•73	2•22 17	0•10 22	4•43 1	50	2•56 29	0•03 21	--	500
4S/1UW-34N 1 S 2-20-64	--	7•7	1020	123 6•14	25 2•06	50 2•17	4 0•10	0	242	145	42	0•04	--
8-19-64	--	7•5	1040	118 5•89	35 2•88	49 2•13	4 0•10	0	281	157	30	0•06	--
4S/11W-16G 1 S 8-16-64	--	7•5	487	48	8	43	2	44	3•27	2•04	0•48	0•10	--
4S/11W-19J 3 S 8-18-64	--	7•5	487	55 2•74	10 0•82	33 1•43	3 0•08	0	230	18	0•0	0•05	--
4S/11W-24A 1 S 3-24-64	--	7•8	815	92 4•59	18 1•48	47 2•04	4 0•10	0	260	89	24•0	0•03	--
SANTA ANA RIVER HYDRO UNIT YO100													
4S/1UW-29M 1 S 10- 2-63	77	7•9	1037	--	--	--	--	4•97	--	2•37	--	--	--
4S/1UW-31F 1 S 6-16-64	--	8•1	804	106 5•29	18 1•48	2•00 17	0•13 22	0	270	123	1•9	0•06	0•03
4S/10W-33F 1 S 4-16-64	--	7•5	962	121 6•04	21 1•73	2•22 17	0•10 22	4•43 1	50	2•56 29	0•03 21	--	500
4S/1UW-34N 1 S 2-20-64	--	7•7	1020	123 6•14	25 2•06	50 2•17	4 0•10	0	242	145	42	0•04	--
8-19-64	--	7•5	1040	118 5•89	35 2•88	49 2•13	4 0•10	0	281	157	30	0•06	--
4S/11W-16G 1 S 8-16-64	--	7•5	487	48	8	43	2	44	3•27	2•04	0•48	0•10	--
4S/11W-19J 3 S 8-18-64	--	7•5	487	55 2•74	10 0•82	33 1•43	3 0•08	0	230	18	0•0	0•05	--
4S/11W-24A 1 S 3-24-64	--	7•8	815	92 4•59	18 1•48	47 2•04	4 0•10	0	260	89	24•0	0•03	--

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity value						Mineral constituents in parts per million							
				Calcium CO ₃	Magnesium Mg	Sodium Na	Sulfur S	Potassium K	Carbonic acid CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	
LOWER SANTA ANA R. HYDRO SUBUNIT YOIAO EAST COASTAL PLAIN HYDRO SUBAREA YOIAO																	
4S/11W-24A 1 S	--	7.6	825	99	15	45	5	0	257	84	66	25.0	0.5	0.10	--	4.93	309
8-18-64				4.094	1.023	1.96	0.13	2	4.021	1.75	1.86	0.40	5			4.66	
4S/11W-24D 3 S	--	7.6	930	114	18	51	5	0	198	196	76	6.8	0.6	0.08	--	6.34	359
8-19-64				5.69	1.48	2.22	0.13	1	3.25	4.08	2.14	0.11	1				
4S/11W-24P 1 S	66	7.9	550	54	23	36	3	0	245	60	29	0.0	0.4	0.10	--	5.65	
7-3-64				2.669	1.89	1.57	0.08	1	4.02	1.25	0.82					3.38	229
5S/ 8W-31K 1 S	--	7.7	1882	--	--	--	0	0	329	--	2	--	--	--	--	3.26	
3-9-64								5.39		0.06							
5S/ 8W-32L 1 S	--	7.3	1815	132	55	195	0.5	0	333	462	166	12.0	0.6	0.16	36	124.5	556
3-12-64				6.559	4.52	8.48	0.13	1	5.46	9.62	4.68	0.19	1				122.7
5S/ 9W-4D 1 S	--	8.0	392	18	2	73	2	7	139	44	20	15	0.4	0.06	--	24.9	53
5-18-64				0.90	0.16	3.17	0.05	0.23	2.028	0.92	0.56	0.24	6				
5S/ 9W-5R 1 S	--	7.6	588	58	13	51	2	0	195	77	34	11	0.1	0.04	--	25.0	
5-24-64				2.889	1.07	2.22	0.05	1	3.20	1.60	0.96	0.18	3				34.6
5S/ 9W-14Q 2 S	--	7.4	1814	114	38	232	4	0	325	413	185	32.0	0.3	0.29	30	126.3	441
3-12-64				5.69	3.13	10.09	0.10	1	5.33	8.60	5.22	0.52	3				120.8

TABLE E-I
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reaction value				Mineral constituents in parts per million			
				Calcium C a	Magnesium M g	Sodium N a	Potassium K	Carbonate CO ₃	Carbonate HCO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Nitrate NO ₃	Fluoride F	Boron B	Sulfur dioxide SO ₂
LOWER SANTA ANA R. HYDRO SUBUNIT YOLAO EAST COASTAL PLAIN HYDRO SUBAREA YOLAO															
5S/ 9W-15J 1 S 3- 9-64	--	7.8	869	--	--	--	--	0	256 4.20	1.31 2.73	66 1.86	--	--	--	--
5S/ 9W-16Q 2 S 2-19-64	7.6	854	93	26	50	2	0	244 4.00	130 4.5	61 1.72	23.0 0.37	0.3 0.4	0.11 0.07	--	557 505
8-17-64	--	7.5	867	100	24	45	2	0	245 4.02	137 2.85	65 1.83	24.0 0.39	0.4 0.39	--	568 348
5S/ 9W-21B 1 S 3-17-64	--	7.5	1182	124	33	73	2	0	299 4.00	200 4.00	87 4.00	66.0 1.06	0.3 1.9	0.02 19	518 823
5S/ 9W-24H 1 S 3- 9-64	--	7.8	1955	--	--	0	0	336 5.51	--	207 5.84	--	--	--	--	751 445
5S/ 9W-25E 1 S 1-27-64	--	7.4	1147	58	35	145	3	0	367 6.02	200 4.16	72 2.03	3.7 1.7	0.6 0.06	0.15 0.29	-- 35
3- 9-64	--	7.8	1129	57	31	158	4	0	380 6.02	191 4.9	66 34	2.5 1.7	0.4 0.04	0.29 0.29	708 708
5S/ 9W-31B 1 S 2-19-64	--	7.8	442	27	6	61	2	0	174 2.85	53 1.10	18 0.51	0.6 0.01	0.4 0.05	-- 0.05	732 270
				1.030	0.49	2.65	0.05								271 92
				1.11		58	1								254

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in°F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica		
Date sampled				Na	Mg	K	Na	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂		
LOWER SANTA ANA R. HYDRO SUHUNIT YOLAO																	
EAST COASTAL PLAIN HYDRO SUHUNIT YOLAO																	
5S/ 9W-31B 1 S	--	7•5	426	22	4	65	0	160	52	20	0•0	0•4	0•08	--	271	72	
8-17-64				1•10	0•33	2•83	0•05	2•62	1•08	0•56	0•13					244	
				26	8	66	1	25	62	13							
5S/ 9W-32A 1 S	--	8•4	422	14	3	81	2	7	168	47	15	0•0	0•5	0•05	13	285	
3-17-64				0•70	0•25	3•52	0•05	0•23	2•75	0•98	0•42					265	
				15	6	78	1	5	63	22	10						
5S/ 9W-34J 1 S	--	7•8	788	--	--	--	0	261	--	66	--	--	--	--	--		
3-12-64																	
5S/ 9W-34J 2 S	--	7•7	1225	--	--	--	0	393	--	73	--	--	--	--	--		
3-12-64																	
5S/ 9W-34Q 1 S	--	7•7	959	--	--	--	0	223	--	164	--	--	--	--	--		
3-17-64																	
5S/ 9W-35J 1 S	--	7•7	965	76	27	118	5	305	181	83	3•1	0•5	0•11	--	690		
6-15-64				3•79	2•22	5•13	0•03	5•00	3•77	2•34	0•05					644	
				34	20	46	1	45	34	21							
5S/ 9W-36B 1 S	--	7•5	2140	168	74	213	4	0	395	446	254	58•0	0•3	0•19	32	1522	
3-12-64				8•38	6•09	9•26	0•10	6•47	9•29	1•16	0•94					1444	
				35	26	39		27	39	30	4						
5S/ 10W-1E 2 S	--	7•7	705	84	16	40	3	0	220	69	25	0•3	0•02	--	427	276	
3-23-64				4•19	1•32	1•74	0•08	3•61	1•44	1•75	0•40					407	
				57	18	24	1	50	50	20	6						

TABLE E-I
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per percent reacionce				Mineral constituents in parts per million								
				Calcium C _a	Magnesium M _g	Sodium N _a	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Sulfur S	Total Evap 18°C os Complicated CaCO ₃
LOWER SANTA ANA R. HYDRO SUBUNIT YOLAO EAST COASTAL PLAIN HYDRO SUBAREA YOLAI																
5S/10W-2B 1 S 2-20-64	--	7.7	854	10.8 5.39	1.56 5.9	1.9 2.13	4 0.10	0 2.3	0 4.75	290 52	131 2.73	56 1.58	0.06 0.11	0.07 1	--	539 517
5S/10W-4E 1 S 1-15-64	--	7.6	810	9.9 4.04	1.7 1.40	4.1 1.78	4 0.10	0 2.2	0 4.25	259 2.58	124 1.38	49 0.23	0.7 1.3	0.02 3	--	507 317
5-18-64	--	7.5	814	9.9 4.04	1.8 1.48	4.5 1.96	4 0.10	0 2.3	0 4.28	261 50	116 2.42	55 1.55	0.5 0.26	0.04 3	--	503 476
5S/10W-1UD 2 S 10- 9-63	--	7.9	847	--	--	--	--	--	--	296 4.85	-- 1.75	62 1.75	--	--	--	482 321
6-16-64	--	8.1	800	9.9 4.04	2.2 1.81	4.8 2.09	4 0.10	0 2.3	0 4.49	274 50	116 2.42	70 1.42	0.2 0.18	0.10 2	--	540 338
5S/10W-13B 3 S	70	7.7	469	5.0 2.50	11 0.90	3.3 1.43	2 0.05	0 1	0 1.43	207 50	41 3.39	22 0.85	1.5 0.62	0.05 0.02	0.08 13	505 278
5S/10W-22-64	--	8.6	364	5 0.25	1 0.08	7.4 3.22	1 0.03	1 0.50	15 2.25	137 61	22 0.46	17 0.48	0.6 0.01	0.07 13	0.08 --	235 170
5S/10W-25R 1 S 1-27-64	--	8.9	386	4 0.20	0 3.70	85 94	1 0.03	0 1.4	0 1.4	174 73	22 0.46	20 0.56	0.6 0.01	0.11 14	--	204 218
6-15-64	--	8.9													--	219 10

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million reactivity				Mineral constituents in parts per million				YOLAO				
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate				
Date sampled				M g	N a	K	C O ₃	H C O ₃	S O ₄	C l	B	S O ₂				
LOWER SANTA ANA R. HYDRO SUBUNIT YOLAO																
EAST COASTAL PLAIN HYDRO SUBAREA YOLAO																
5S/10W-26D 3 S	--	7.5	481	4.6	10	4.2	0.05	0	204	52	19	4.3	0.09	--	284	156
2-19-64				2.30	0.83	1.37	0.05	1	3.34	1.08	0.54	0.07	1			
				4.6	16	1.61	0.05		66	21	11					
5S/10W-26N 1 S	--	7.6	486	4.6	11	3.7	2	0	199	64	20	1.2	0.3	0.03	--	276
1-27-64				2.30	0.90	1.61	0.05		3.26	1.33	0.56	0.02	11			
				4.7	19	3.3	1		63	26						
5S/10W-27E 1 S	--	8.2	378	6	0	8.6	1	0	177	23	18	2.5	0.7	0.10	--	313
2-19-64				0.30		3.74	0.03		2.90	0.48	0.51	0.04	1			
				7	92	1			74	12	13					
5S/10W-28H 2 S	--	8.0	900	6.0	4.7	7.5	2	0	419	6.2	6.9	0.0	0.8	0.15	--	279
6-16-64				2.99	3.87	3.26	0.05		6.87	1.29	1.95					
				29	38	32			68	13						
5S/10W-28Q 1 S	--	7.4	470	4.2	1.3	4.1	2	0	203	4.8	21	0.0	0.4	0.07	--	219
6-16-64				2.10	1.07	1.78	0.05		3.33	1.00	0.59					
				4.2	21	3.6	1		68	20	12					
5S/10W-29P 4 S	--	7.8	650	6.8	21	4.2	3	0	264	74	43	3.0	0.4	0.13	--	522
6-16-64				3.39	1.73	1.83	0.08		4.33	1.54	1.21	0.05	1			
				4.8	25	26	1		61	22	17					
5S/10W-30L 4 S	65	9.4	255	1.2	9	3.3	4	19	73	34	14	1.0	0.5	0.04	23	343
10- 1-63				0.60	0.74	1.43	0.10	0.63	1.20	0.71	0.39	0.02	1			
				21	26	50	3	21	41	24						
64	9.1	282	1.8	5	30	3		12	67	37	17	1.0	0.4	0.03	--	158
4-13-64				0.41	1.30	0.08	0.40	1.10	0.77	0.48	0.02	1				
				33	15	48	3	14	40	28	17					

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity						Mineral constituents in parts per million parts per million							
				Calcium C a	Magnesium M g	Sodium N a	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Sulfur dioxide SO ₂	Total Evap 80°C loss	
LOWER SANTA ANA R. HYDRO SUBUNIT YOLAO EAST COASTAL PLAIN HYDRO SUBAREA YOLAO																	
5S/10W-30L 5 S	--	8.4	397	4.4	7	33	3	0	190	34	1.2	1.5	0.5	0.12	30	219	139
10- 1-63				2.20	0.58	1.43	0.08	2	3.11	0.71	0.34	0.02					
4-13-64	64	8.5	422	4.8	8	30	2	7	184	36	0.8	0.5	0.05				259
				2.40	0.66	1.30	0.05	1	2.23	3.02	0.75	0.45	0.01				248
5S/10W-30L 6 S	65	8.6	434	3.4	10	43	4	17	123	55	29	1.4	0.5	0.04			153
10- 1-63				1.70	0.82	1.87	0.10	0.57	2.02	1.15	0.82	0.02					239
4-13-64	64	8.7	526	6.1	10	37	3	12	185	61	29	1.2	0.5	0.04			126
				3.04	0.82	1.61	0.08	0.40	3.03	1.27	0.82	0.02					238
5S/10W-30N 4 S	--	8.1	495	6.0	12	33	3	0	231	54	23	1.0	0.7	0.08			278
8- 4-64				2.99	0.99	1.43	0.08	1	3.79	1.12	0.65	0.02					278
5S/10W-30P 3 S	--	8.0	428	5.0	9	31	2	0	219	37	14	1.0	0.6	0.08			300
8- 4-64				2.50	0.74	1.35	0.05	1	3.59	0.77	0.39	0.02					306
5S/10W-30Q 1 S	--	7.8	600	6.0	22	44	2	0	275	72	31	0.0	0.2	0.10			193
6-17-64				2.99	1.81	1.91	0.05	1	4.51	1.50	0.87						193
5S/10W-31A14 S	--	7.9	908	12.3	24	53	4	0	364	129	64	2.0	0.7	0.10			367
8- 4-64				6.14	1.97	2.30	0.10	1	5.97	2.69	1.80	0.03					367
SANTA ANA RIVER HYDRO UNIT YOLAO																	
5S/10W-30L 5 S	--	8.4	397	4.4	7	33	3	0	190	34	1.2	1.5	0.5	0.12	30	219	139
10- 1-63				2.20	0.58	1.43	0.08	2	3.11	0.71	0.34	0.02					259
4-13-64	64	8.5	422	4.8	8	30	2	7	184	36	0.8	0.5	0.05				248
				2.40	0.66	1.30	0.05	1	2.23	3.02	0.75	0.45	0.01				248
5S/10W-30L 6 S	65	8.6	434	3.4	10	43	4	17	123	55	29	1.4	0.5	0.04			239
10- 1-63				1.70	0.82	1.87	0.10	0.57	2.02	1.15	0.82	0.02					239
4-13-64	64	8.7	526	6.1	10	37	3	12	185	61	29	1.2	0.5	0.04			238
				3.04	0.82	1.61	0.08	0.40	3.03	1.27	0.82	0.02					238
5S/10W-30N 4 S	--	8.1	495	6.0	12	33	3	0	231	54	23	1.0	0.7	0.08			278
8- 4-64				2.99	0.99	1.43	0.08	1	3.79	1.12	0.65	0.02					278
5S/10W-30P 3 S	--	8.0	428	5.0	9	31	2	0	219	37	14	1.0	0.6	0.08			306
8- 4-64				2.50	0.74	1.35	0.05	1	3.59	0.77	0.39	0.02					306
5S/10W-30Q 1 S	--	7.8	600	6.0	22	44	2	0	275	72	31	0.0	0.2	0.10			306
6-17-64				2.99	1.81	1.91	0.05	1	4.51	1.50	0.87						306
5S/10W-31A14 S	--	7.9	908	12.3	24	53	4	0	364	129	64	2.0	0.7	0.10			367
8- 4-64				6.14	1.97	2.30	0.10	1	5.97	2.69	1.80	0.03					367

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE(Y)

State well number	Temp when sampled in°F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million							
				CaCO ₃	MgSO ₄	NaCl	KNO ₃	CaCO ₃	MgSO ₄	NaCl	KNO ₃	CaCO ₃	MgSO ₄	NaCl	KNO ₃		
LOWER SANTA ANA R. HYDRO SUBUNIT YOLAC EAST COASTAL PLAIN HYDRO SUBAREA YOLAI																	
5S/10W-31B 7 S 8- 4-64	--	7.9	415	4.9	8	31	2	0	212	34	14	1.0	0.6	0.08	19	235	156
5S/10W-31B 8 S 8- 4-64	--	7.9	468	2.45 5.0 4.7	0.66 1.35 0.99	1.35 30 19	0.05 2	0	3.47 0.71 0.06	0.39 0.15 0.73	0.02 0.15 0.14	0.10	0.06	0.10	14	263	175
5S/10W-31C 7 S 8- 4-64	--	7.8	498	5.9	12	34	2	0	273	3	26	0.0	0.6	0.10	14	265	175
5S/10W-31C11 S 8- 5-64	--	8.2	410	5.3	5	35	3	0	240	4.7	22	0.0	0.5	0.08	22	283	197
5S/10W-31H 3 S 8- 5-64	--	8.4	585	4.9	2.9	42	3	0	3.93	0.98	0.62	0.62	0.0	0.08	22	290	197
5S/10W-31J 1 S 11- 5-63	--	7.9	420	3.6	2.38 3.5	1.83 0.88	0.08 0.40	0	215	38	13	0.0	0.6	0.17	--	317	153
5S/10W-31J 1 S 8- 4-64	--	8.2	460	4.9	1.23 4.6	1.61 2.3	0.05 0.05	0	3.52 0.79	0.37	0.17	0.17	0.0	0.08	--	254	153
5S/10W-31K 1 S 8- 5-64	--	8.2	460	5.2	12	38	2	0	260	14	4.3	2.0	0.4	0.08	--	253	153
				2.59 4.9	0.99 1.19	1.65 3.1	0.05 0.1	0	4.26 0.29	0.39	0.21 0.18	0.03 0.16	0.08 0.18	--	392	242	
																348	
																	266
																	181
																	184
																	278
																	274
																	179
																	274

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per milliliter reactivity						Mineral constituents in parts per million						
				Colicium C o	Magnesium M g	Sodium N o	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total hardness CaCO ₃
LOWER SANTA ANA R. HYDRO SUBUNIT YOLAO EAST COASTAL PLAIN HYDRO SUBUNIT YOLAO																
5S/10W-31L 2 S	--	7.6	2690	335	82	153	6	0	166	61	920	0.0	0.1	0.20	1.6	2178
11- 5-63				16.0	72	6.0	74	6.0	2.72	1.0	27	25.0	94			1174
5S/10W-31L 3 S	69	8.0	595	49	22	46	3	0	167	92	60	0.0	0.2	0.08	--	1655
8- 5-64				2.0	45	1.81	39	2.00	0.08	2.74	1.0	69				213
5S/10W-31R 7 S	--	8.2	540	42	28	42	2	0	273	44	24	0.0	0.4	0.05	--	374
8- 5-64				2.0	10	2.30	1.83	0.05	4.47	0.92	0.68					354
5S/10W-32C 1 S	--	8.0	780	75	36	52	3	0	272	141	60	1.0	0.4	0.22	--	352
8- 4-64				3.0	74	2.96	2.26	0.08	4.046	2.94	1.69	0.02				220
5S/10W-32CIU S	--	8.1	2125	145	48	271	5	0	510	461	168	5.0	0.6	0.73	--	486
8- 4-64				7.0	24	3.95	11.0	78	0.13	8.0	36	9.0	74	0.08		335
5S/10W-32F 4 S	--	8.2	900	86	38	72	4	0	270	166	89	3.0	0.4	0.22	--	502
8- 4-64				4.0	29	3.13	0.10	4.043	3.046	2.51	0.05					502
5S/10W-33C 2 S	--	7.8	626	47	12	66	2	0	194	99	34	0.6	0.5	0.04	--	591
1-27-64				2.0	35	0.99	2.87	0.05	3.018	2.006	0.96	0.01				1355
5S/10W-33D 1 S	--	7.9	410	39	7	37	2	0	184	38	15	0.0	0.4	0.03	--	371
6-23-64				1.0	95	0.58	1.61	0.05	3.005	0.79	0.42	0.19				167
SANTA ANA RIVER HYDRO UNIT YOLAO																127
SANTA ANA RIVER HYDRO UNIT YOLAO																229

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents				parts per million equivalents per million percent reactivity value				Mineral constituents in parts per million			
				Calcium C _a	Magnesium M _g	Sodium N _a	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂
LOWER SANTA ANA R. HYDRO SUBUNIT YOLAO EAST COASTAL PLAIN HYDRO SUBAREA YOLAI															
5S/10W-36J 2	5	--	7.6	6687	34.8	19.0	970	10	0	210	1639	0.2	0.7	0.16	13
4-10-64					17.37	15.63	42.18	0.26	5	3.44	38.86				4.877
5S/11W-1H 1	5	--	7.9	756	9.0	17	4.3	4	0	264	86	54	7.4	0.5	4.652
5-18-64					4.49	1.40	1.87	0.10	5	4.33	1.79	1.52	0.12		4.71
5S/11W-3H 4	5	--	7.6	476	5.7	10	29	3	0	220	42	23	2		4.32
4-15-64					2.84	0.82	1.26	0.08	5	3.61	0.87	0.65	0.05		299
5S/11W-4D 1	5	--	7.7	431	4.3	9	33	2	0	207	28	16	0.6	0.5	299
1-27-64					2.15	0.74	1.43	0.05	5	3.39	0.58	0.45	0.01		183
6-15-64					4.9	17	33	1	7	77	13	10			
5S/11W-7C 1	5	25	8.2	399	34	8	44	2	0	210	35	17	0.6	0.5	273
10- 9-63					1.70	0.66	1.91	0.05	5	3.64	0.73	0.48	0.01		14.5
5S/11W-7C 2	5	--	8.0	420	44	9	37	2	0	207	28	16	0.6	0.5	--
10- 9-63					2.20	0.74	1.61	0.05	5	3.39	0.58	0.45	0.01		263
6-22-64					4.8	16	35	1	7	74	16	10			
5S/11W-7C 3	5	--	8.8	323	39	15	44	1	--	186	34	12	0.0	0.4	234
10- 9-63					0.30	0.08	3.09	0.03	2	3.05	0.71	0.34			14.7
78 8.4					6	1	71	1	2	153	17	15	0.0	0.6	231
7.8 8.4					0.30	0.08	88	1	2	2.01	0.35	0.42			24.8
5S/11W-7C 4	5	--	8.8	323	--	--	--	--	7	144	--	13	--	--	210
10- 9-63									0.23	2.36	0.37				118
SANTA ANA RIVER HYDRO UNIT YO100															
YODA															
5S/10W-36J 2	5	--	7.6	6687	34.8	19.0	970	10	0	210	1639	0.2	0.7	0.16	13
4-10-64					17.37	15.63	42.18	0.26	5	3.44	38.86				4.877
5S/11W-1H 1	5	--	7.9	756	9.0	17	4.3	4	0	264	86	54	7.4	0.5	4.652
5-18-64					4.49	1.40	1.87	0.10	5	4.33	1.79	1.52	0.12		4.71
5S/11W-3H 4	5	--	7.6	476	5.7	10	29	3	0	220	42	23	2		4.32
4-15-64					2.84	0.82	1.26	0.08	5	3.61	0.87	0.65	0.05		299
5S/11W-4D 1	5	--	7.7	431	4.3	9	33	2	0	207	28	16	0.6	0.5	--
1-27-64					2.15	0.74	1.43	0.05	5	3.39	0.58	0.45	0.01		14.5
6-15-64					4.9	17	33	1	7	77	13	10			
5S/11W-7C 1	5	25	8.2	399	34	8	44	2	0	210	35	17	0.6	0.5	--
10- 9-63					1.70	0.66	1.91	0.05	5	3.64	0.73	0.48	0.01		263
5S/11W-7C 2	5	--	8.0	420	44	9	37	2	0	207	28	16	0.6	0.5	--
10- 9-63					2.20	0.74	1.61	0.05	5	3.39	0.58	0.45	0.01		234
6-22-64					4.8	16	35	1	7	74	16	10			
5S/11W-7C 3	5	--	8.8	323	39	15	44	1	--	186	34	12	0.0	0.4	16
10- 9-63					0.30	0.08	3.09	0.03	2	3.05	0.71	0.34			210
78 8.4					6	1	71	1	2	153	17	15	0.0	0.6	216
7.8 8.4					0.30	0.08	88	1	2	2.01	0.35	0.42	0.10		19
5S/11W-7C 4	5	--	8.8	323	--	--	--	--	7	144	--	13	--	--	189
10- 9-63									0.23	2.36	0.37				

TABLE E-I
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity value						Mineral constituents in parts per million					
				Calcium C _a	Magnesium M _g	Sodium N _a	Potassium K	Carbonate C _O ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silicate SiO ₂
LOWER SANTA ANA R. HYDRO SUBUNIT YOLAO EAST COASTAL PLAIN HYDRO SUBAREA YOLAO															
5S/11W-7C 2 S 6-22-64	--	8.2	35.0	0.20	1	75	0	16.1	1.9	0.0	0.6	0.07	--	22.8	14
5S/11W-8C 1 S 10- 9-63	25	7.8	105.9	3.69	7.4	0.03	0.91	2.64	0.40	0.39	0.12	1.12	1.12	1.94	1.94
10-15-63	25	7.7	74.7	3.34	2.14	4.78	0.10	--	1.33	2.84	0.0	2.9	0.12	6.77	29.2
10-15-63	25	8.1	39.1	--	--	4.5	1.0	2.18	5.91	2.48	2.3	5.6	--	6.66	6.66
5S/11W-11Q 3 S 4-16-64	--	7.1	62.5	3.64	1.07	1.43	0.23	--	1.48	--	5.3	0.4	--	--	--
5S/11W-14A 4 S 6-17-64	--	7.9	54.5	5.7	1.3	3.5	0	25.0	4.3	24	0.0	0.4	0.05	--	304
5S/11W-14A 9 S 6-19-64	--	7.6	50.0	3.09	0.90	1.57	0.08	4.08	1.10	0.90	1.12	0.7	0.11	--	362
5S/11W-14F 2 S 4-15-64	--	7.9	42.6	4.8	7	31	3	25.6	3.7	22	0.0	0.4	0.07	--	34.3
				2.40	0.58	1.35	0.08	4.20	0.77	0.62	1.1	1.1	0.07	--	304
				5.4	1.3	2.8	1	7.2	1.16	0.48	1.7	0.0	0.4	--	297
				19	22	28	1	20	1.17	2	14	0.71	0.04	--	200
				5.2	5.7	16	1	60	1.17	1.1	16	1.16	0.48	--	240
				19	17	28	1	75	1.14	1.1	16	1.16	0.48	--	14.9
				19	17	31	2	34	1.39	0.71	1.7	0.0	0.4	--	24.2
				13	13	31	2	74	1.31	1.1	10	1.16	0.48	--	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million reactivity value								Mineral constituents in parts per million per million value							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silicate	TDS Evap 180°C	TDS Evap 105°C	Total hardness as CaCO ₃	
Date sampled				mg	mg	mg	mg	mg	mg	mg	mg	mg	mg	mg	mg	mg	mg	mg	
LOWER SANTA ANA R. HYDRO SUBUNIT YOLAO EAST COASTAL PLAIN HYDRO SUBAREA YOLAO																			
5S/11W-16A 2 S 1-15-64	--	8.0	4.21	4.5	0.58	1.48	0.05	2	0	204	40	15	0.0	0.6	0.02	--	250	142	
5S/11W-16B 1 S 10- 2-63	--	7.8	4.46	--	5.2	1.34	0.05	1	3.04	0.83	18	0.42	--	--	--	244			
5S/11W-17H 2 S 6-11-64	--	7.9	4.35	4.8	0.99	1.43	0.08	3	0	215	40	16	0.0	0.6	0.06	22	250	170	
5S/11W-18N 3 S 10-18-63	6.2	7.7	3.0000	51.50	87.01	376.10	6.14	240	0	271	2464	16810	0.0	0.2	3.50	11	36472	6931	
63	7.5	340000	51.80	1038	1099	9400	240	0	305	2201	17910	0.0	0.1	1.67	10	34840	7115		
2-20-64			9	90.38	408.71	6.14	73	1	1	5.00	45.82	505.06					32050		
5S/11W-18N 4 S 2-20-64	6.3	7.7	19500	998	430	4400	55	0	99	1062	8830	0.0	0.1	0.85	10	17460	4261		
5S/11W-18N 5 S 10-18-63	6.2	7.4	17000	49.80	35.36	191.31	1.41	1	1	1.62	22.01	249.01					15835		
7-20-64			14	18	13	69	1		1	8	91						15562	3411	
5S/11W-18N 5 S 10-18-63	6.2	7.4	32.39	64.9	435	3600	103	0	250	1061	7180	0.0	0.2	1.70	15	13168			
7-20-64	--	7.5	20000	794	559	4968	110	0	266	1371	9500	0.0	0.1	1.10	11	18700	4283		
			13	39.62	45.97	216.01	2.81	1	4.10	22.09	2024.48						17445		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (macro mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity value						Mineral constituents in parts per million								
				Calcium C _o	Magnesium M _g	Sodium N _a	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total hardness °dS	E ₁₀₀ (°C)	E ₁₀₀ (°SC)
LOWER SANTA ANA R. HYDRO SUBUNIT YOLAO																		
5S/11W-18N 6 S 12-19-63	68	8.0	54.00	19.0 9.48	7.8 6.41	1.1 4.5-44	0.28 0.28	0 2.02	1.23 3	254 55.50	1968 88	0.0 0.1	0.48 0.38	11 10	1840 3618	795 3618		
2-20-64	67	8.2	52.00	20.6 10.28	6.4 5.26	1.3 0.33	0 2.80	1.1 5	248 5.16	1897 53.50	0.0 0.2	0.13 0.13	12 12	3830 3597	778 3597			
5S/11W-18N 7 S 10-18-63	68	8.3	37.0	1.6 0.80	2 0.16	6.3 2.74	2 0.05	3 0.10	14.9 2.44	27 0.56	20 0.56	0.0 0.0	0.13 0.13	12 12	246 246	4.8 4.8		
2-20-64	70	8.2	31.0	1.2 0.60	2 0.16	6.5 2.83	2 0.05	0 0.10	1.79 2.93	5 0.10	1.9 0.54	0.0 0.0	0.15 0.15	9 9	250 250	38 38		
5S/11W-19R 7 S 4-17-64	--	8.2	57.0	5.5 2.74	9 0.74	4.7 2.04	3 0.08	0 1	156 2.56	37 0.77	77 2.17	1.0 0.02	0.05 0.05	-- --	301 306	174 306		
5S/11W-19B 3 S 11- 1-63	66	8.1	62.0	4.7 2.35	22 1.81	5.7 2.48	4 0.10	0 3.52	215 0.77	37 2.37	84 36	0.0 0.0	0.15 0.15	18 18	378 378	208 208		
4-17-64	68	8.1	72.1	7.3 3.64	10 0.82	5.5 2.39	4 0.10	0 3.18	194 0.87	42 2.99	106 42	1.5 0.02	0.05 0.05	-- --	430 387	223 387		
5S/11W-19B 4 S 4-17-64	--	8.2	60.6	5.3 2.64	9 0.74	5.1 2.22	3 0.08	0 3.39	207 0.83	40 1.35	0.5 0.01	0.09 0.09	-- --	292 307	169 307			

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reactivity value				Mineral constituents in parts per million							
				Calcium C _o	Magnesium M _g	Sodium N _a	K	Chloride Cl ₋	Sulfate SO ₄	Bicarbonate HCO ₃	Carbon dioxide CO ₂	Nitrate NO ₃	Fluoride F	Boron B	Silicate SiO ₂	TDS Total Evap 80°C			
LOWER SANTA ANA R. HYDRO PLAIN SUBUNIT YOLAO																			
EAST COASTAL PLAIN SUBUNIT YOLAO																			
5S/11W-19B 5 5 4-16-64	68	8.0	410	1.00	0.08	24	1	69	1	0	144	34	35	1.5	0.06	--	235	54	
5S/11W-19B 6 5 4-16-64	--	8.8	328	0.35	0.7	0	3.00	69	1	2.36	0.71	0.99	0.02	0.02	--	233	233		
5S/11W-19B 7 5 5-13-64	65	7.6	29000	1186	806	66.29	6000	17	12	140	8	20	0.5	0.08	--	199	18		
5S/11W-19B 8 5 9- 8-64	--	8.0	650	1.60	1.97	32	24	69	0	183	1919	12410	0.0	0.2	0.65	--	188		
5S/11W-19B 9 5 9- 8-64	--	8.0	850	2.45	2.06	28	4.00	9.1	12	66	5	16	1	--	26040	6279			
5S/11W-19B 10 5 8- 3-64	--	7.9	1300	58	84	1.7	0.10	73	0	212	4.9	74	0.0	0.4	0.11	--	22429		
5S/11W-19B 11 5 8- 3-64	--	8.0	6000	2.89	6.91	3.17	0.10	49	0	3.47	1.02	2.09	32	32	--	370	179		
5S/11W-19B 12 5 7-29-64	--	8.2	2300	64	167	10.77	16.74	131	4	0	202	68	305	0.0	0.2	0.04	357	357	
SANTA ANA RIVER HYDRO UNIT Y0100																			
WEST COASTAL PLAIN SUBUNIT Y0100																			
5S/11W-19B 13 5 8- 3-64	--	8.0	340	1.9	13.73	10.44	0.08	64	17	27	0	169	136	2046	0.0	0.1	0.35	--	487
5S/11W-19B 14 5 7-29-64	--	8.2	12	3.09	13.50	10.58	0.08	64	56	56	0	2.77	2.83	57.70	0.0	0.2	0.04	--	732
5S/11W-19B 15 5 7-29-64	--	8.2	2300	64	167	13.73	10.44	64	12	50	0	54.2	28.1	436	0.0	0.1	0.22	--	490
SANTA ANA RIVER HYDRO UNIT Y0100																			
WEST COASTAL PLAIN SUBUNIT Y0100																			
5S/11W-19B 16 5 8- 3-64	--	8.0	340	1.9	13.73	10.44	0.08	64	17	50	0	8.88	5.85	12.30	0.0	0.1	0.22	--	692
5S/11W-19B 17 5 7-29-64	--	8.2	12	3.09	13.50	10.58	0.08	64	56	56	0	33	33	46	0.0	0.1	0.22	--	4282
SANTA ANA RIVER HYDRO UNIT Y0100																			
WEST COASTAL PLAIN SUBUNIT Y0100																			
5S/11W-19B 18 5 8- 3-64	--	8.0	340	1.9	13.73	10.44	0.08	64	17	50	0	8.88	5.85	12.30	0.0	0.1	0.22	--	3489
5S/11W-19B 19 5 7-29-64	--	8.2	12	3.09	13.50	10.58	0.08	64	56	56	0	33	33	46	0.0	0.1	0.22	--	1682
SANTA ANA RIVER HYDRO UNIT Y0100																			
WEST COASTAL PLAIN SUBUNIT Y0100																			
5S/11W-19B 20 5 8- 3-64	--	8.0	340	1.9	13.73	10.44	0.08	64	17	50	0	8.88	5.85	12.30	0.0	0.1	0.22	--	1458

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in°F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	TDS at 65°C	TDS at 55°C
Date sampled	C.O.	M.g.	N.O.	N.K.	at°C	HCO ₃	CO ₃	SO ₄	Cl.	F	B	SiO ₂	E ₆₅	E ₅₅	°C	°C	
LOWFR SANTA ANA R. HYDRO SUBUNIT YOLAO																	
FAST COASTAL PLAIN HYDRO SUBUNIT YOLAO																	
55/11W-20E 5 S	--	8.1	6.71	2.25	4.5	4.2	0.08	0	2.61	6.3	4.0	0.0	0.2	0.07	--	3.76	24.8
7-29-64				1.25	3.70	1.83	0.08	4.28	1.31	1.13	1.17	0.0	0.6	0.50	--	34.7	
55/11W-20E 6 S	--	8.2	4.60	5.1	9	38	3	0	2.22	4.1	1.3	0.0	0.6	0.50	--	26.6	16.4
7-28-64				2.54	0.74	1.65	0.08	3.64	0.85	0.37	0.17	0.0	0.6	0.50	--	26.5	
55/11W-20G 1 S	--	8.3	4.20	4.6	1.3	33	3	1	2.18	3.6	1.3	0.0	0.2	0.08	14	26.2	16.9
1- 7-64				2.30	1.07	1.43	0.08	0.03	3.57	0.75	0.37	0.0	0.2	0.08	14	26.2	
55/11W-20G 5 S	--	8.0	4.10	3.7	1.2	35	2	0	2.04	3.6	1.3	0.0	0.4	0.08	14	29.2	14.2
1- 7-64				1.85	0.99	1.52	0.05	3.34	0.75	0.37	0.17	0.0	0.4	0.08	14	29.2	
55/11W-20G 7 S	--	7.9	4.40	4.9	1.0	33	3	0	2.14	3.6	1.4	0.0	0.2	0.08	15	24.4	16.4
1- 7-64				2.45	0.82	1.43	0.08	3.51	0.75	0.39	0.17	0.0	0.4	0.08	15	24.4	
55/11W-20J 3 S	--	8.0	4.20	5.1	5	36	2	0	1.95	4.4	1.8	0.0	0.2	0.07	--	24.0	14.8
7-20-64				2.54	0.61	1.57	0.05	3.20	0.92	0.51	0.20	0.0	0.2	0.07	--	24.0	
55/11W-20J 4 S	--	8.3	4.80	4.3	1.2	4.5	2	2.18	4.9	2.2	0.0	0.4	0.10	--	30.0	15.7	
6-19-64				2.15	0.99	1.96	0.05	0.07	3.57	1.02	0.62	0.0	0.4	0.10	--	30.0	
55/11W-20J 6 S	--	8.1	4.20	5.3	3	39	3	0	2.00	3.8	1.7	0.0	0.4	0.07	--	24.0	14.5
7-23-64				2.64	0.25	1.70	0.08	3.28	0.79	0.48	0.17	0.0	0.4	0.07	--	25.2	
				5.7	5	36	2	72	17	11							

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents						Mineral constituents in parts per million								
				CaCO ₃	MgO	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Barium	Silicate	Total hardness °DGH	Temp 80°C °C	Temp 105°C °C
LOWER SANTA ANA R. HYDRO SUBUNIT YOLAO																		
5S/11W-20K 2 S	--	8.1	2275	136	137	197	0	395	24.3	518	19.0	0.2	0.24	21	1688	904		
1- 8-64				6.79	11.27	8.57	0.15	6.47	5.06	14.61	0.31					1472		
				25	4.2	32	1	24	19	55	1							
7-20-64	--	8.0	2300	218	92	157	5	0	336	213	523	14.0	0.1	0.24	--	1614	923	
				10.38	7.57	6.83	0.13	5.51	4.43	14.75	0.23							
				30	27	27	1	22	18	59	1							
5S/11W-20K 3 S	--	8.2	395	35	15	34	2	0	198	40	13	0.0	0.4	0.05	13	252	149	
1- 8-64				1.075	1.23	1.48	0.05	3.25	0.83	0.37								
				39	27	33	1	73	19	8								
7-20-64	--	7.8	440	48	9	36	3	0	207	43	15	0.0	0.2	0.10	--	248	157	
				2.040	0.74	1.57	0.08	3.39	0.90	0.42								
				50	15	33	2	72	19	9								
5S/11W-20K 5 S	--	7.7	450	50	8	36	3	0	208	34	21	0.0	0.4	0.07	--	246	158	
7-20-64				2.050	0.66	1.57	0.08	3.41	0.71	0.59								
				52	14	33	2	72	15	13								
5S/11W-20K 9 S	--	8.2	390	38	11	36	2	0	195	42	13	0.0	0.6	0.08	14	234	140	
1- 8-64				1.090	0.90	1.57	0.05	3.20	0.87	0.37								
				43	20	36	1	72	20	8								
7-20-64	--	7.7	430	35	13	37	2	0	202	40	15	0.0	0.2	0.07	--	240	141	
				1.075	1.07	1.61	0.05	3.31	0.83	0.42								
				39	24	36	1	73	18	9								
5S/11W-20K 7 S	65	7.0	21000	1544	469	3900	30	0	228	1063	9130	0.0	0.1	0.88	13	17610	5786	
4-27-64				77.05	38.57	169.57	0.77	3.74	22.13	257.47	91							
				27	13	59		1	8									
SANTA ANA RIVER HYDRO UNIT YOLOO																		

TABLE E-I
MINERAL ANALYSES OF GROUND WATER 1962/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos oh 25°C)	Mineral constituents in				Mineral constituents in				Mineral constituents in						
				Calcium C _o	Magnesium M _g	Sodium N _a	Chloride C _l	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Nitrate NO ₃	Fluoride F	Boron B	Sulfur S _o	Total dissolved solids TDS at 105°C			
LOWER SANTA ANA R. HYDRO SUBUNIT YO100 EAST COASTAL PLAIN HYDRO SUBAREA YO1A1																		
SANTA ANA RIVER HYDRO UNIT YO100																		
5S/11W-20M 3 S 10-11-63	66	7.9	76.0	6.9 3.44 45	1.07 14	3.00 39	0.10 1	0 37	1.74 2.85 37	5.2 1.08 14	0.0 0.0 4.9	136 3.84 4.9	0.05 0.16 1.7	14 1.7	508 4.43 226			
4-27-64	66	8.0	65.0	5.9 2.94 42	1.40 20	2.61 37	0.08 1	0 44	184 42	4.2 108	0.0 0.0	0.2 1.7	0.16 1.7	1.7	376 217			
5S/11W-20M 4 S 10-11-63	68	8.3	32.5	1.15 1.32	0.08 2.64	1 2.64	5.2 0.05	2 1.17	135 2.21	31 0.65	0.0 0.48	0.04 0.48	0.05 1.2	12	397 222 62			
4-27-64	69	8.6	33.0	1.15 32	0.16 4	2.26 62	0.05 1	5 5	148 2.43	32 0.67	0.0 0.39	14 0.39	0.1 1.1	1.1	1.2 2.22 210			
5S/11W-20M 6 S 7-16-64	--	7.2	27000	234.0	6.64	4100	40	0	230	1013	0.0	0.01	0.09	13	208 216 66			
5S/11W-20M 7 S 7-16-64	--	8.1	53.0	1.30 24	54.61 4.0	178.27 34	1.02 1	51	3.77 1	21.09 6	319.51 93	0.0	0.1	0.36 0.17	--	23140 19600 8576		
5S/11W-20M 8 S 7-16-64	--	7.3	36000	455.01 726.00	1138 93.59	5350 232.62	35 0.89	0	209 3.43	34 0.71	40 1.13	0.0 0.0	0.6 0.17	--	286 172 274			
5S/11W-20M 1 S 7-14-64	--	7.5	37000	81.0 40.02	98.7 81.17	8700 378.28	11.0 2.81	0	244 4.00	2267 4.720	15710 443.02	0.0 0.0	0.2 3.90	--	31740 31096 29200 6084			
															28708			

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in°F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reactivity				Mineral constituents in parts per million											
				Ca	Mg	Sodium	K	Carbon dioxide	HCO ₃	Boron	SiO ₂	F	NO ₃	Cl	Total hardness °dH	Total TDS Evap 180°C Evap 105°C Computed CO ₂							
LOWER SANTA ANA R. HYDRO SUBUNIT Y0100																							
EAST COASTAL PLAIN HYDRO SUBUNIT Y0101				55/11W-20N 2 S	--	7.2	5600	677	14.8	32.9	1.2	0	14.2	16.3	1911	0.0	0.2	0.17	--	4250	2299		
								33.78	12.17	13.91	0.31	1	2.33	3.39	53.89	0.0	0.2	0.17	--	3301			
								56	20	23		4		6	90					24000	5463		
								59.18	50.00	295.66	0.51	0	326	1667	12730	0.0	0.2	2.24	--				
								15	12	73		1	5.34	34.71	358.99	90				23174			
								4.59	4.36	53	1.05	0	215	6.2	319	0.0	0.2	0.10	16	1094	4448		
								34	32	33	1	1	3.52	1.29	9.00								
								6.09	1.81	3.61	0.10	0	201	5.5	254	0.0	0.2	0.10	--	790	395		
								52	16	31	1	1	3.29	1.15	7.16								
								14.2	22	83	4	0	180	74	429	0.0	0.1	0.19	15	1380	631		
								7.09	5.51	3.78	0.13	0	2.95	1.54	12.10								
								43	33	23	1	1	18	9	73								
								18.9	5.2	95	5	0	188	6.6	47.5	0.0	0.2	0.12	--	1296	686		
								9.43	4.28	4.13	0.13	0	3.08	1.37	13.40								
								52	24	23	1	1	17	8	75								
								76.60	19.98	29.13	0.43	0	100	53.4	3998	0.0	0.1	0.05	11	8380	4833		
								61	16	23		1	1.64	11.12	112.74	90							
								14.46	28.7	750	1.8	0	159	52.6	4131	0.0	0.1	0.21	--	7700	4789		
								72.11	23.60	32.61	0.46	0	2.61	10.95	116.49	8							
								56	18	25		2											

TABLE E-I
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				Mineral constituents in				Y0100	
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride		
Date sampled				mg	mg	mg	mg	HCO ₃	CO ₃	SO ₄	SiO ₂		
LOWER SANTA ANA R. HYDRO SUBUNIT Y0100 FAST COASTAL PLAIN HYDRO SUBAREA Y01A1													
55/11W-200 6 S	--	8.1	415	4.7	1.0	3.9	0	201	34	27	0.0	0.08	13
1- 8-64				2.35	0.82	1.70	0.008	3.29	0.71	0.76	0.0	0.2	264
55/11W-20015 S	--	8.0	420	3.7	1.6	3.4	0	216	37	12	0.0	0.6	11
1- 7-64				1.85	1.32	1.48	0.008	3.54	0.77	0.34	0.11	0.1	272
55/11W-200 7 S	--	8.0	420	4.4	8	3.7	0	204	37	13	0.0	0.2	11
1- 8-64				2.20	0.66	1.61	0.005	3.34	0.77	0.37	0.14	0.1	256
7-23-64	--	8.2	430	4.7	1.0	3.7	3	201	36	21	0.0	0.2	159
				2.35	0.82	1.61	0.008	3.29	0.75	0.59	0.05	0.05	257
55/11W-200 8 S	--	8.1	420	3.9	1.2	3.5	2	205	32	14	0.0	0.4	16
1- 7-64				1.95	0.99	1.52	0.005	3.36	0.67	0.39	0.11	0.1	254
7-23-64	--	8.1	450	4.9	9	3.8	2	218	38	16	0.0	0.2	14
				2.45	0.74	1.65	0.005	3.57	0.79	0.45	0.10	0.1	258
55/11W-200 9 S	--	8.0	400	4.5	8	3.5	0	203	38	12	0.0	0.4	159
1- 7-64				2.25	0.66	1.52	0.005	3.33	0.79	0.34	0.05	0.05	257
55/11W-20011 S	--	8.0	550	5.5	17	4.1	3	216	43	56	0.0	0.2	16
1- 8-64				2.74	1.40	1.78	0.008	3.54	0.90	1.58	0.07	0.07	207
				4.6	2.3	3.0	1	5.9	15	26			337

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in°F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reaction value				Mineral constituents in parts per million				
				C o	C o(um)	M g(um)	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfate
Date sampled				K	Na	Ca	HCO ₃	CO ₃	SO ₄	Cl	F	B	SiO ₂	Total hardness °C	TDS	
LOWER SANTA ANA R. HYDRO SUBUNIT YOLAO																
EAST COASTAL PLAIN HYDRO SUBUNIT YOLAO																
5S/11W-20011 S 7-20-64	--	8.2	605	4.7	2.35	2.22	1.87	0.08	0	212	4.6	74	0.0	0.2	0.10	--
5S/11W-20012 S 1- 8-64	--	8.0	410	3.7	1.85	1.15	1.61	0.08	0	208	3.47	2.09	0.0	0.2	0.11	14.
5S/11W-20013 S 1- 7-64	--	7.5	525	5.4	1.2	3.7	3	3	0	3.41	0.75	0.48	0.0	0.2	0.11	14.
5S/11W-20014 S 1- 8-64	--	7.8	815	5.5	4.4	5.4	4	0	0	212	4.6	4.4	0.0	0.2	0.10	--
5S/11W-20015 S 7-23-64	--	7.4	760	8.6	1.25	2.35	0.10	0.08	0	3.47	0.96	1.24	0.0	0.2	0.10	--
5S/11W-20016 S 7-20-64	--	8.2	390	4.6	7	3.6	2	0.05	0	1.96	4.9	160	0.0	0.4	0.03	16
5S/11W-20017 S 6-19-64	--	8.3	430	2.30	0.58	1.57	0.05	0.05	0	3.21	1.02	4.51	0.0	0.4	0.03	16
SANTA ANA RIVER HYDRO UNIT YOLAO																
5S/11W-20018 S 6-19-64	--	7.8	500	4.5	3.8	1.07	1.57	0.08	0.10	3.20	0.83	0.42	0.0	0.4	0.10	--
5S/11W-20019 S 6-19-64	--	7.8	430	2.43	1.32	2.25	1.65	0.05	0	214	3.7	32	0.0	0.4	0.10	--
SANTA ANA RIVER HYDRO UNIT YOLAO																
5S/11W-20020 S 6-19-64	--	7.8	500	4.5	3.2	1.32	1.65	0.05	0.1	3.51	0.77	0.90	0.0	0.4	0.10	--
SANTA ANA RIVER HYDRO UNIT YOLAO																
SANTA ANA RIVER HYDRO UNIT YOLAO																

TABLE E-I
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per cent reductance				Mineral constituents in parts per million parts per million value				Mineral constituents in parts per million parts per million					
				C o	M g	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	T.D.S.	
Date sampled				C o	M g	N a	K	C O ₃	H C O ₃	S O ₄	C l	N O ₃	F	B	S O ₂	Total Hardness as CaCO ₃	
LOWER SANTA ANA R. HYDRO SUBUNIT YOIAO EAST COASTAL PLAIN HYDRO SUBAREA YOIAO																	
SANTA ANA RIVER HYDRO UNIT YOIAO																	
5S/11W-70R 4 S	--	8.0	390	4.3	11	36	0	204	40	18	0.0	0.02	0.08	13	268	153	
1- 8-64				2.15	0.90	1.57	0.08	3.34	0.83	0.51						265	
46				46	19	33	2	71	18	11							
5S/11W-20R 5 S	--	7.9	400	3.9	11	35	0	194	40	14	0.0	0.02	0.17	15	228	143	
1- 8-64				1.95	0.90	1.52	0.05	3.18	0.83	0.39							
44				20	20	34	1	72	19	9						252	
5S/11W-20R 8 S	--	8.1	410	4.2	13	36	0	204	41	21	0.0	0.02	0.11	14	278	159	
1- 9-64				2.10	1.07	1.57	0.08	3.34	0.85	0.59							
44				44	22	33	2	70	18	12						271	
5S/11W-20R 9 S	--	8.1	460	4.4	13	36	3	0	212	38	21	0.0	0.02	0.05	16	256	164
1- 9-64				2.20	1.07	1.57	0.08	3.47	0.79	0.59							
45				45	22	32	2	72	16	12						275	
5S/11W-20R10 S	--	7.8	380	4.2	10	36	2	201	31	16	0.0	0.01	0.08	13	250	146	
1- 9-64				2.10	0.82	1.57	0.05	3.29	0.65	0.45							
46				46	18	35	1	75	15	10						249	
5S/11W-21A 7 S	--	8.1	420	5.2	4	34	2	201	35	19	0.0	0.02	0.08	--	256	146	
7-22-64				2.59	0.33	1.48	0.05	3.29	0.73	0.54							
58				58	7	33	1	72	16	12						245	
5S/11W-21L 2 S	--	8.2	420	4.8	12	34	2	207	42	21	0.0	0.02	0.13	16	282	170	
1- 9-64				2.40	0.99	1.48	0.05	3.39	0.87	0.59							
49				49	20	30	1	70	18	12						277	
620	--	8.3	6.9	15	40	3	211	83	36	2.0	0.02	0.10	--	372	234		
3.44				1.23	1.74	0.08	0.10	3.46	1.73	1.02							
53				53	19	27	1	55	27	16						355	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reaoncance value				Mineral constituents in parts per million per million percent							
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silicon	Total dissolved solids	F	B	S _{0.2}
Date sampled				M g	M g	N a	K	HCO ₃	HCO ₃	SO ₄	Cl	NO ₃	F						
LOWER SANTA ANA R. HYDRO SUBUNIT YOLAO EAST COASTAL PLAIN HYDRO SUBAREA YOLAO																			
5S/11W-21L 3 S 1- 9-64	--	8.1	450	53	11	34	0.05	0	205	45	23	2.0	0.2	0.07	17	298	177		
				2.64	0.90	1.48	0.05		3.36	0.94	0.65	0.03							
				52	18	29	1	67	19	13	1								
7-22-64	--	7.9	490	4.6	16	35	3	0	206	49	27	4.0	0.2	0.10	--	288			
				2.30	1.32	1.52	0.08		3.08	1.02	0.76	0.06							
				44	25	29	2	65	20	15	1								
5S/11W-21L 4 S 1- 9-64	--	8.0	430	4.7	10	33	3	0	208	41	14	0.0	0.4	0.07	16	262	159		
				2.35	0.82	1.43	0.08		3.41	0.85	0.39								
				50	18	31	2	73	18	8									
5S/11W-21L 5 S 1- 9-64	--	8.2	430	38	14	37	2	0	201	40	17	0.8	0.4	0.05	16	264	153		
				1.90	1.15	1.61	0.05		3.29	0.83	0.48	0.01							
				40	24	34	1	71	18	10									
--	--	8.2	430	4.0	11	38	4	0	189	38	23	0.0	0.2	0.08	--	246	145		
				2.00	0.90	1.65	0.10		3.10	0.79	0.65								
				43	19	35	2	68	17	14									
5S/11W-21L 6 S 1- 9-64	--	8.1	385	4.2	10	33	3	0	198	32	14	0.0	0.4	0.08	9	240	146		
				2.10	0.82	1.43	0.08		3.25	0.67	0.39								
				47	19	32	2	75	16	9									
--	--	7.8	460	54	11	34	3	0	215	34	28	0.0	0.4	0.08	--	274	180		
				2.69	0.91	1.48	0.08		3.52	0.71	0.79								
				52	17	29	2	70	14	16									
5S/11W-21M 3 S 6-19-64	--	7.9	380	25	2	54	1	0	167	38	15	0.0	0.2	0.08	--	224	71		
				1.25	0.16	2.35	0.03		2.74	0.79	0.42								
				33	4	62	1	69	20	11									

TABLE E-I
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value				Mineral constituents in parts per million equivalents per million percent reaction value				TDS Total Evap 180°C Evap 105°C Complicated CaCO ₃				
				Ca	Mg	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate				
Date sampled				No.	No.	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	B					
LOWER SANTA ANA R. HYDRO SURUNIT YOLAU EAST COASTAL PLAIN HYDRO SUBAREA YOLAU																
5S/11W-21M 4 S 1- 9-64	--	8.1	530	59	1.6	4.0	0	205	78	34	0.0	0.07	16	372	213	
				2.94	1.32	1.74	0.08	3.36	1.62	0.96						
				4.8	2.2	2.9	1	57	27	16						
5S/11W-21M 6 S 7-22-64	--	8.3	450	50	9	3.5	3	205	44	0.0	0.2	0.10	--		347	
				2.50	0.74	1.52	0.08	0.10	0.92	0.42					252	
				52	15	31	2	70	19	9					162	
5S/11W-21M 7 S 7-21-64	--	8.4	600	69	13	4.5	3	203	99	29	0.0	0.2	0.09	--		
				3.44	1.07	1.96	0.08	0.13	3.33	2.06	0.82					
				53	16	30	1	2	53	32	13					
5S/11W-21N 1 S 12- 7-63	--	8.2	530	43	22	38	3	0	205	64	32	0.0	0.2	0.08	--	
				2.15	1.81	1.65	0.08		3.36	1.33	0.90					
				38	32	29	1	60	24	16						
5S/11W-21N 2 S 1- 9-64	--	8.2	340	19	2	57	1	0	154	40	12	0	0.6	0.29	12	303
				0.95	0.16	2.48	0.03		2.52	0.83	0.34					
				26	4	69	1	68	22	9						
7-73-64	--	8.1	375	28	1	69	1	0	150	29	53	0.0	0.2	0.07	--	
				1.40	0.08	3.00	0.03		2.46	0.60	1.49					
				31	2	67	1	54	13	33						
5S/11W-21N 2 S 6-19-64	--	8.2	500	45	19	48	1	0	201	114	17	0.0	0.2	0.11	12	255
				2.25	1.56	2.09	0.03		3.29	2.37	0.48					
				38	26	35	1	54	39	8						
5S/11W-21N 2 S 6-19-64	--	8.2	580	49	21	50	2	0	200	117	22	0.0	0.2	0.08	--	355
				2.45	1.73	2.17	0.05		3.28	2.44	0.62					191
				38	27	34	1	52	38	10						
SANTA ANA RIVER HYDRO UNIT																
YU100																

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity				Mineral constituents in parts per million equivalents per million percent reactivity				Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fuo	Boron	Sulfate	TDS
Date sampled				Na	K	CO ₃	HCO ₃	SO ₄	HCO ₃	Na	F	B	SO ₄	Evap 105°C Computed	Total hardness	
LOWER SANTA ANA R. HYDRO SUBUNIT YO1AO EAST COASTAL PLAIN HYDRO SUBAREA YO1AO																
SANTA ANA RIVER HYDRO UNIT YO100																
5S/11W-21N 3 S 1- 8-64	--	8.1	38.0	27	1	6.1	2	0	18.2	34	0.0	0.2	0.08	1.2	23.2	72
				1.35	0.08	2.65	0.05	64	73	0.71	0.39					24.1
				33	2	64	1			17	10					
--	8.1	40.0	27	2	60	1	0	185	41	1.3	0.0	0.2	0.07	--		23.2
				1.35	0.16	2.61	0.03	63	71	0.85	0.37					76
				33	4	63	1			20	9					
7-20-64	--	7.7	64.0	22	41	3	0	240	11.9	2.9	0.0	0.2	0.08	--		23.5
				3.44	1.81	1.78	0.08	25	54	0.93	0.48	0.82				
				48												
5S/11W-21N 4 S 7-25-64	--	8.1	64.0	53	30	42	3	0	219	14.5	2.1	0.0	0.2	0.07	1.6	4.24
				2.64	2.47	1.83	0.08	35	50	0.59	0.02	0.59				26.3
				38												
5S/11W-21N 5 S 1- 8-64	--	8.2	64.0	53	30	42	3	0	219	14.5	2.1	0.0	0.2	0.07	1.6	4.01
				2.64	2.47	1.83	0.08	26	50	0.59	0.02	0.59				
				38												
--	8.2	59.0	60	21	43	3	0	215	10.4	2.9	0.0	0.2	0.12	--		4.40
				2.99	1.73	1.87	0.08	28	54	0.52	0.17	0.82				25.6
				45												
7-21-64	--	8.1	59.0	66	12	41	3	0	210	8.4	2.6	0.0	0.4	0.12	1.1	4.18
				3.29	0.99	1.78	0.08	29	58	0.44	0.75	0.79				
				54	16	29	1									
5S/11W-21N 6 S 1- 9-64	--	8.2	62.5	72	13	39	3	0	208	4.8	7.8	0.0	0.2	0.12	--	4.22
				3.59	1.07	1.70	0.08	26	52	0.41	1.00	2.20				23.6
				56	17	26	1									
7-22-64	--	7.8	50.0	53	16	37	3	0	223	3.8	3.9	0.0	0.4	0.19	1.6	3.49
				2.64	1.32	1.61	0.08	28	66	0.65	0.79	1.10				
				47	23											
5S/11W-21N 7 S 1- 9-64	--	7.8	50.0	53	16	37	3	0	223	3.8	3.9	0.0	0.4	0.19	1.6	3.48
				2.64	1.32	1.61	0.08	28	66	0.65	0.79	1.10				198
				47	23											
																312

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reactivity				Mineral constituents in parts per million				
				Calcium C _o	Magnesium M _g	Sodium N _a	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silicate SiO ₂	TDS Total Evap 80°C Evap 105°C Computed
LOWER SANTA ANA R. HYDRO SUBUNIT Y0100 EAST COASTAL PLAIN HYDRO SUBAREA YUJAI																
5S/11W-21N 7 S 7-20-64	--	8.1	545	53 2•64 45	17 1•40 24	39 0•08 1	0	212 3•47 60	54 1•16 19	41 0•02	0•10	--	314	202		
5S/11W-21N 8 S 1- 9-64	--	8.2	630	62 3•09 39	33 2•71 35	45 1•96 25	0	226 3•70 48	38 1•07 38	0•0	0•11	13	502	290		
	--	8.2	720	83 4•14 50	24 1•97 24	47 2•04 25	4	0	232 3•80 47	161 1•02 41	0•0	0•05	--	443		
	--	8.2	570	52 2•59 42	22 1•81 29	39 1•70 28	0	218 3•57 1	83 1•73 57	33 0•07 27	0•2	0•05	496	306		
	--	8.2	368	8 0•40 11	0 3•35 89	77 0•35 70	0	153 2•51 70	31 0•42 18	15 0•02 12	0•2	0•07	16	469		
	--	7.8	908	20 5•44 57	54 1•64 17	0 2•35 25	4	0	243 3•98 43	145 3•02 33	7•0 0•5 23	0•19	--	198	20	
	--	7.6	1320	166 8•28 48	55 4•52 26	95 4•13 24	6 0•15 1	0	249 4•08 48	576 11•99 70	37 1•04 6	0•0	0•25	11	208	
	--	7.9	620	67 3•34 48	21 1•73 25	42 1•83 26	3 0•08 1	0	232 3•80 55	129 2•69 39	13 0•37 5	0•0	0•10	17	1130	641
	--	7.9													1069	
	--														420	254
															406	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million reactivity value				Mineral constituents in parts per million						
				Calcium C _o	Magnesium M _g	Sodium N _a	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fuoride F	Boron B	Silica SiO ₂	TDS Total Evap 105°C	Total hardness as CaCO ₃	
LOWER SANTA ANA R. HYDRO SUBUNIT YOLAO EAST COASTAL PLAIN HYDRO SUBAREA YOLAI																		
SANTA ANA RIVER HYDRO UNIT YO100																		
55/11W-22P 1 S 12-31-63	--	8.2	450	3.9 1.95 3.7	1.73 0.08 2	21 36 29	3 1.57 0.08 2	0 3.70 72	0.43 0.54 0.11	0.19 0.14	0.04 0.14	0.04 0.14	0.16 0.16	318	184			
55/11W-220 3 S 7-22-64	--	7.5	765	6.8 3.39 3.9	39 3.21 23	45 1.96 1.10	4 0.10 1	0 4.41 52	154 3.21 38	2.9 0.82 10	0.12 0.03	0.12 0.12	--	289	514			
55/11W-23F 1 S 2-19-64	--	7.8	461	5.4 2.69	9 0.74	31 1.35	3 0.08	0 3.51	214 0.81	3.9 0.56	0.6 0.02	0.10 0.10	--	473	330			
55/11W-23M 1 S 6-17-64	--	8.1	635	7.8 3.89	11 0.90	40 1.74	3 0.08	0 3.47	212 2.35	113 0.76	1.0 0.02	0.08 0.02	--	274	172			
55/11W-23R 1 S 6-17-64	--	8.2	500	5.2 2.59	11 0.90	33 1.43	3 0.08	0 3.72	227 0.85	41 0.48	1.0 0.02	0.05 0.05	--	263	263			
55/11W-25N 1 S 10- 2-63	25	7.9	549	7.6 3.79	4 0.33	35 1.52	3 0.08	-- 3.64	222 1.19	57 0.76	4.0 0.06	0.07 0.07	1.8	378	378			
6-17-64	68	7.9	550	6.1 3.04	11 0.90	36 1.57	3 0.08	0 3.70	226 1.21	5.8 0.73	3.0 0.05	0.08 0.08	--	270	270			
55/11W-25R 2 S 10- 2-63	77	7.7	678	--	--	--	--	--	278 4.56	-- 0.85	30 --	-- --	--	310	197			

TABLE E-I
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reacione						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silicate	T.D.S.	Total hardness
Date sampled	Sampled in °F	Mg	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	SiO ₂	8	5.02	B	SiO ₂	8	200	35
LOWER SANTA ANA R. HYDRO SUBUNIT YOLAO EAST COASTAL PLAIN HYDRO SUBAREA YOLAI																	
55/11W-26E 5 S 6-19-64	--	7.7	368	14 0.70 19	0 3.04 81	70 0.03 1	1 0.04 81	0 2.67 71	163 0.62 16	30 0.45 12	16 0.04 1	0.18	--	200	214		
55/11W-26L 3 S 1-10-64	--	8.5	376	22 1.10 29	0 2.65 70	61 0.03 1	12 0.40 10	158 2.59 68	27 0.56 15	10 0.28 15	10 0.0 7	--	--	265	55		
55/11W-26M 7 S 10-2-63	--	8.6	410	--	--	--	--	10 0.33	209 3.43	--	15 0.42	--	--	211			
1-27-64	--	7.8	398	6 0.30 7	1 0.08 90	86 3.74 90	1 0.03 1	0 3.57 82	218 0.23 5	11 0.51 5	18 0.02 12	0.7 0.21	--	263	19		
6-17-64	--	8.1	390	4 0.20 5	2 0.16 4	91 3.96 91	1 0.03 1	0 3.67 85	224 0.23 5	11 0.42 5	15 0.10 5	0.6 0.02	--	232	18		
8-19-64	--	7.5	409	9 0.45 11	0 3.74 89	86 0.03 1	1 0.03 1	0 3.52 84	215 0.15 4	7 0.51 12	18 0.0 12	0.6 0.23	--	268	18		
55/11W-26M 8 S 10-2-63	--	8.6	371	--	--	--	--	9 0.30	175 2.87	--	14 0.39	--	--	235	228		
4-15-64	--	7.7	357	9 0.45 13	0 3.04 86	70 0.03 1	1 0.03 1	0 3.05 80	186 0.37 10	18 0.39 10	14 0.0 10	0.5 0.11	--	256	23		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents percent reaaction						Mineral constituents in parts per million								
				Calcium C _o	Magnesium M _g	Sodium N _a	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Sulfur S	Total hardness S _o ₂		
LOWER SANTA ANA R. HYDRO SUBUNIT YO1AQ EAST COASTAL PLAIN HYDRO SUHAREY YO1AI																		
5S/11W-26M 8 S 6-17-64	76	8.1	370	6	2	84	1	0	184	30	17	1.0	0.6	0.10	--	228	23	
5S/11W-26M 9 S 10-2-63	--	8.6	263	--	--	3.65	0.03	0.88	3.02	0.62	0.46	0.02	0.12	--	--	232		
1-15-64	--	8.3	363	9	1	78	1	0.03	0.23	0.02	0.19	0.48	1.4	--	--	--		
3-23-64	--	8.3	370	8	0	76	1	0	194	20	18	0.0	0.8	0.09	--	238	27	
6-17-64	--	8.5	384	6	1	82	1	5	177	20	16	0.0	0.5	0.15	--	227	20	
5S/11W-26P 1 S 6-17-64	--	8.5	380	4	1	81	1	3	178	0.42	0.51	0.12	0.0	0.5	0.15	--	213	
5S/11W-27A 4 S 12-31-63	--	8.2	620	71	17	40	3	0	217	70	66	4.4	0.2	0.17	1.7	406	247	
5S/11W-27B 3 S 12-31-63	--	8.2	730	93	29	44	4	0	254	200	27	7.5	0.4	0.17	1.8	564	395	
				4.064	2.38	1.91	0.10	4.016	4.016	0.76	0.12	0.1				548		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Mineral constituents		Parts per million equivalents per equivalent reac-tance value				Mineral constituents in parts per million				
			Specific conductance (micro-mhos at 25°C)	Magnesium-Calcium Co.	Sodium	Potassium	Carbonate	Bicarbon- ate	Sulfate	Chloride	Nitrate	Fluoride	Boron
Date sampled			Mg g	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	Silicate	
LOWER SANTA ANA R. HYDRO PLAIN HYDRO SUBUNIT YOLAI													
5S/11W-27C 4 S	68	8.0	71.0	79	4.7	0	232	198	20	0.01	0.17	1	544
1-110-64				3.04	2.04	0.10	3.80	4.12	0.56				316
5S/11W-27C 5 S	--	8.2	400	4.5	0.66	1.52	0.05	0	207	34	0.08	16	492
12-31-63				2.05	5.0	34	1	3.39	0.71	0.45			146
7-20-64	--	8.2	44.0	1.33	1.7	3.6	2	0	200	43	0.0	0.2	258
5S/11W-27F 4 S	--	8.1	61.0	6.3	2.7	4.3	3	0	220	120	0.10	--	153
12-31-63				3.014	2.022	1.87	0.08	3.61	2.50	0.76			264
7-22-64	--	8.2	82.0	9.5	3.2	5.2	4	0	234	182	0.0	0.10	251
5S/11W-27H 4 S	--	7.8	136.0	13.3	4.0	11.9	6	0	171	214	0.4		369
12-31-63				6.064	3.29	5.17	0.15	2.80	4.46	8.09			582
6-17-64	--	8.0	146.0	16.5	2.9	12.5	5	0	226	192	0.0	0.45	531
5S/11W-27K 2 S	69	8.1	35.0	8.2	5.44	0.13	4.20	4.00	7.61	0.16			923
1-7-64				0.085	0.08	3.57	0.03	3.10	0.25	0.48			22
				9	2	89	1	80	6	0.03	0.28	13	229

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per percent reaction value						Mineral constituents in parts per million parts per million									
				Calcium C _a	Magnesium M _g	Sodium N _a	Potassium K	Carbon dioxide CO ₂	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Sulfur S	Total Evap 18°C Evap 10°C Total hardness Evap 10°C Complicated CaCO ₃			
LOWER SANTA ANA R. HYDRO SUBUNIT YO1AU EAST COASTAL PLAIN HYDRO SUBAREA YO1AI																			
5S/11W-27P 3 S 6-17-64	--	7.8	395	26	2	6.3	0.16	2.74	0.05	0	211	3	24	0.0	0.04	0.10	--	228	73
5S/11W-28A 2 S 12-31-63	--	8.0	79U	104	24	50	4	0	269	200	0.06	0.68	0.16	0.02	0.14	16	224	358	
5S/11W-28C 3 S 1-10-64	--	8.1	53U	52	6	54	2	0	4.41	4.46	0.56	34	0.0	0.02	0.07	14	596	565	
7-23-64	--	8.2	494	48	11	44	2	0	228	64	0.8	0.8	0.01	0.07	14	320	154		
5S/11W-28C 7 S 12-31-63	--	8.0	13UU	163	26	85	4	0	3.74	1.33	0.39	0.39	0.01	0.07	14	319	319		
5S/11W-28D 4 S 7-23-64	--	8.0	69U	83	18	42	3	0	193	68	0.39	0.39	0.01	0.06	0.06	--	297	165	
5S/11W-28D 5 S 1-10-64	--	7.7	75U	87	19	48	3	0	204	240	0.0	0.0	0.03	0.03	0.03	1	294	294	
5S/11W-28H 2 S 10-3-63	--	8.4	368	9	1	70	1	5	212	171	0.0	0.0	0.05	0.05	0.05	1	932	514	
SANTA ANA RIVER HYDRO UNIT YO100																			
5S/11W-27P 3 S 6-17-64	--	7.8	395	1.30	0.16	2.74	0.05	0.44	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	
5S/11W-28A 2 S 12-31-63	--	8.0	79U	1.04	0.19	1.97	0.1	2.10	0.10	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	
5S/11W-28C 3 S 1-10-64	--	8.1	53U	0.52	0.49	2.35	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	
7-23-64	--	8.2	494	0.48	0.30	1.91	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	
5S/11W-28C 7 S 12-31-63	--	8.0	13UU	1.63	2.13	2.14	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	
5S/11W-28D 4 S 7-23-64	--	8.0	69U	0.83	1.14	1.48	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	
5S/11W-28D 5 S 1-10-64	--	7.7	75U	0.87	1.16	1.66	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	
5S/11W-28H 2 S 10-3-63	--	8.4	368	0.9	0.08	0.08	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silicate	TDS Evap 180°C	TDS Evap 105°C
Date sampled				Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	CO ₃	
LOWER SANTA ANA R. HYDRO SUBUNIT YOLAI EAST COASTAL PLAIN HYDRO SUBAREA YOLAI																	
5S/11W-28L 1 S 12-31-63	--	7.9	66.0	3.8 1.96	4.33 2.8	4.48 6.6	0.05 1	0 2	162 2.66	35 0.73	125 3.53	0.0 0.13	0.13 11	396 112			
5S/11W-28M 2 S 10-10-63	6.7	8.2	54.0	2.2 1.10	8 0.66	3.70 1.2	0.05 6.7	0 1	168 2.75	22 0.46	83 2.34	0.0 0.09	11	312 398			
4-27-64	--	8.2	61.0	3.5 1.75	5 0.41	3.87 2.9	0.05 7	0 1	174 2.85	18 0.45	104 4.2	0.0 0.1	0.16 12	346 112			
5S/11W-29A1U S 11-21-63	--	8.0	42.0	3.9 1.95	7 0.58	4.3 1.87	2 0.05	0 1	181 2.97	30 0.62	25 0.71	0.0 0.15	14	250 355			
7-22-64	--	8.4	42.0	4.4 2.10	13 0.49	4.2 1.83	2 0.05	1 0.10	175 2.87	33 0.69	28 0.79	0.0 0.08	0.08 --	254 130			
5S/11W-29B11 S 1-7-64	--	8.2	101.0	7.2 3.59	4.1 3.37	8.3 3.61	9 0.23	0 2.44	149 2.44	49 1.02	260 7.33	0.0 0.2	0.11 13	700 348			
7-20-64	--	7.8	89.0	8.9 4.44	14 1.15	78 3.39	3 0.08	0 2.51	153 2.51	34 0.71	203 5.72	0.0 0.10	0.10 --	582 497			
5S/11W-29B12 S 7-22-64	--	7.5	45.00	5.29 2.64	10.0 8.22	29.0 12.61	0 0.26	0 1.7	189 2.21	106 4.85	1484 4.85	0.0 0.1	0.25 --	3200 2612			

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per percent reaction						Mineral constituents in parts per million							
				CaCO ₃	MgO	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fuoride	Boron	Silica	TDS	
Date sampled	in F			Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	SiO ₂	Ca	% 10 ⁻⁶	as CaCO ₃		
LOWER SANTA ANA R. HYDRO SUBUNIT YOLAO EAST COASTAL PLAIN HYDRO SUBAREA YOLAO																	
5S/11W-29C 5 S 7-22-64	--	7•3	39.00	882	1030	9300	120	0	193	2349	16840	0•0	0•2	3•90	--	34180 6441	
5S/11W-29C 6 S 7-22-64	--	7•4	24.00	1283	503	5300	40	0	197	488.91	474.89	0•0	0•0	1•33	--	30620 5274	
5S/11W-29C 7 S 7-22-64	--	7•2	17.00	1114	263	2970	15	0	3•23	27.94	300.05	0•0	0•0	2•50	--	19206 3864	
5S/11W-29C 8 S 7-22-64	--	11•2	23.00	130	410	5	17	0	184	581	6700	0•0	0•0	2•50	--	13220 11736	
5S/11W-29F 1 S 10-11-63	--	7•5	40.00	631	1094	9900	224	0	176	2452	17570	0•0	0•0	0•50	--	13110 374	
4-16-64	--	7•0	40.24	683	1102	9545	66	0	168	2362	17300	3•1	1•9	2•50	10	33920 13113	
5S/11W-29F 2 S 10-11-63	--	7•9	26.50	31.49	89.97	430.45	5•73	1	2•88	51.05	495.47	0•05	0•0	0•50	--	31970 6078	
4-16-64	--	8•0	30.11	90.63	415.02	1•69	6	17	77	2•75	49.18	487.86	0•05	0•0	0•50	--	33630 62440
5S/11W-29F 3 S 10-11-63	--	10•54	3.54	71	19	527	15	0	287	8	823	0•0	0•2	1•03	13	31149 1624	
4-16-64	--	4•24	4.24	85	18	506	4	0	285	17	1	83	0•03	1•50	--	1618 255	
				15	5	79										1591	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reioncience value						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfate	Total Evap 180°C	Evap 105°C
Date sampled	M g	M g	M g	N o	K	CO ₃	HCO ₃	SO ₄	Cl	F	B	Ca	S-0-2				
LOWER SANTA ANA R. HYDRO SUBUNIT YOIAU EAST COASTAL PLAIN HYDRO SUBAREA YOIAU																	
55/11W-29J 2 S 10-10-63	--	7.2	11400	1162	57	1550	25	0	262	1054	3776	0.0	0.1	0.25	14	10060	3136
	--	7.3	12500	57.98	4.69	67.39	0.64	4.29	21.94	106.4b	80					7767	
				57.44	4	52	3	3	1.17							94.12	4104
4-10-64				54.54	27.47	334	1638	20	0	262	1209	4375	9.3	0.6	0.70	--	
				35	18	71.22	0.51	4.29	25.17	123.38	0.15					8808	
						46	3	3	16	81							
55/11W-29J 3 S 10-10-63	--	8.2	370	22	2	58	2	0	150	27	30	0.0	0.6	--	11	24.2	6.3
				10.10	0.16	2.42	0.05	2.46	0.56	0.85							
				29	4	66	1	64	14	22							
4-10-64				40.05	22	2	57	2	0	155	24	29	1.0	0.3	0.06	--	
				1.10	0.16	2.48	0.05	2.54	0.50	0.82	0.02						
				29	4	65	1	65	13	21	1						
55/11W-32A 1 S 10-8-63	71	8.0	2800	69	22	525	5	0	352	4	778	0.0	0.2	1.24	14	1590	263
				3.44	1.81	22.83	0.13	5.77	0.08	21.94	79						
				12	6	81	21										
4-16-64	71	8.0	2820	75	18	499	6	0	337	0	738	5.0	0.3	1.30	--	1498	261
				3.74	1.48	21.70	0.15	5.52	21	20.81	79						
				14	5	80	1										
55/11W-33B 2 S 10-9-63	65	7.8	800	86	13	57	3	0	207	3	162	0.0	0.4	0.09	15	564	268
				4.29	1.07	2.48	0.08	3.39	0.06	4.57							
				54	14	31	1	42	1	57							
4-9-64	65	7.6	830	84	15	54	3	0	210	0	159	2.0	0.4	0.06	--	54.7	271
				4.19	1.23	2.35	0.08	3.44	0.04	4.48	43						
				53	16	30	1										

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents				parts per million equivalents per million percent reactivity value				Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fu. -	Boron	Silicate	Total hardness °dH
Date sampled	C. o.	M. g.	N. o.	K	C. O. ₃	HCO ₃	SO ₄	Cl	NO ₃	F	θ	S. O. 2	S. O. 2	S. O. 2	Equiv. TDS °SC	Calculated CaCO ₃
LOWER SANTA ANA R. HYDRO SUHUNIT YOLAC EAST COASTAL PLAIN HYDRO SUBAREA YOLAC																
5S/11W-33B 3 S 10-10-63	66	11.7	21700	4.97	97	4100	47	0	430	6840	0.0	0.1	0.30	1	16394	1640
5S/11W-33B 4 S 10-10-63	64	8.4	1360	24.80	7.98	178.27	4.60	1.57	8.42	192.69	95				12192	290
4- 9-64				4.39	1.40	17	158	19	143	29					934	
5S/11W-33B 5 S 10- 9-63	65	8.2	4384	5.89	118	93	630	35	0	198	150	1255	0.0	0.4	764	678
4- 9-64				14	18	65	27.39	0.89	3.25	3.12	35.39					
5S/11W-33B 1 S 6-19-64	67	8.1	375	1.90	38	6	42	2	0	192	32	15	0.0	0.4	2800	2379
4- 9-64				44	11	43	0.49	1.83	0.05	3.15	0.67	0.42				120
5S/11W-33H 1 S 72	68	8.1	396	1.85	37	7	38	2	0	193	27	0.6	0.03	--	24.2	24.5
5S/11W-34F 3 S 12- 6-63	74	8.1	354	1.45	1.65	0.05	1.65	0.05	3.16	0.56	0.48	0.01			237	122
5S/11W-35E 1 S 12-31-63	69	7.3	6800	0.35	7	1	138	2	0	348	14	20	0.6	0.14	21.1	28
				5	0.08	0.08	6.00	0.05	5.70	0.29	0.56	0.03				
				1	1	93	1	0	8.7	4	9				20.7	
				10	4	85	1	3.26	3.33	0	203	0	0.6			
				10	4	85	1	0.03	0.56	14						
				12	12	58	12	0.41	10.29	0.54	2447	6.901	0.0	0.1	5020	1651
				29					13	1	1				4492	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million						
			Specific conductance (micro-mhos at 25°C)	Calcium C. _o	Magnesium M. _g	Sodium N. _a	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂
LOWER SANTA ANA R. HYDRO SUBUNIT YOLAI EAST COASTAL PLAIN HYDRO SUBAREA YOLAI															
5S/11W-35F 4 S 6-17-64	--	8.5	380	0.45	0.16	2	0.03	3.13	0.10	2.92	0.35	1.7	0.0	0.12	--
5S/11W-35P 1 S 4-29-64	70	7.9	940	4.2	2.10	22	0.05	130	2	0	221	5	209	0.0	2.30
5S/11W-35P 4 S 4-29-64	--	7.6	950	3.9	1.81	5.65	0.05	59	1	3.62	0.10	5.89	0.0	0.47	31
5S/11W-35P 5 S 4-29-64	72	8.0	570	1.8	0.95	1.73	0.09	140	2	0	216	11	213	0.0	206
5S/11W-35P 7 S 4-29-64	71	8.2	750	0.90	0.08	5.04	0.05	70	1	243	0	75	0.0	0.47	196
5S/11W-35P 5 S 4-29-64	72	8.7	570	0.7	0.35	0.16	0.08	126	3	11	184	1	90	0.0	534
5S/11W-35P 7 S 4-29-64	71	8.2	750	3.0	1.50	0.33	5.48	90	1	0.02	3.02	2.02	2.04	0.0	534
5S/11W-36B 2 S 10-2-63	77	7.9	513	--	--	5.87	0.05	35	1	3.36	4.3	4.51	0.0	0.43	184
6-17-64	--	7.9	525	53	2.64	1.32	0.08	16	2	0	205	0	160	0.0	364
SANTA ANA RIVER HYDRO UNIT YO100															
5S/11W-35P 5 S 4-29-64	70	7.9	940	4.2	2.10	22	0.05	130	2	0	221	5	209	0.0	560
5S/11W-35P 4 S 4-29-64	--	7.6	950	3.9	1.81	5.65	0.05	59	1	3.62	0.10	5.89	0.0	0.38	49
5S/11W-35P 5 S 4-29-64	72	8.0	570	1.8	0.95	1.73	0.09	140	2	0	216	11	213	0.0	345
5S/11W-35P 7 S 4-29-64	71	8.2	750	3.0	1.50	0.33	5.48	90	1	0.02	3.02	2.02	2.04	0.0	462
5S/11W-36B 2 S 10-2-63	77	7.9	513	--	--	5.87	0.05	35	1	3.36	4.3	4.51	0.0	0.43	26
6-17-64	--	7.9	525	53	2.64	1.32	0.08	16	2	0	205	0	160	0.0	336
SANTA ANA RIVER HYDRO UNIT YO100															
5S/11W-35P 5 S 4-29-64	70	7.9	940	4.2	2.10	22	0.05	130	2	0	221	5	209	0.0	534
5S/11W-35P 4 S 4-29-64	--	7.6	950	3.9	1.81	5.65	0.05	59	1	3.62	0.10	5.89	0.0	0.38	49
5S/11W-35P 5 S 4-29-64	72	8.0	570	1.8	0.95	1.73	0.09	140	2	0	216	11	213	0.0	345
5S/11W-35P 7 S 4-29-64	71	8.2	750	3.0	1.50	0.33	5.48	90	1	0.02	3.02	2.02	2.04	0.0	462
5S/11W-36B 2 S 10-2-63	77	7.9	513	--	--	5.87	0.05	35	1	3.36	4.3	4.51	0.0	0.43	26
6-17-64	--	7.9	525	53	2.64	1.32	0.08	16	2	0	205	0	160	0.0	336

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per percent reactivity						Mineral constituents in parts per million			
				Magnesium Mg	Sodium Na	Chloride Cl	Sulfate SO ₄	Boron B	Fluoride F	Nitrate NO ₃	Total hardness as CaCO ₃	Expt Br/C as CaCO ₃	Expt SO ₄ / Expt Cl/C as CaCO ₃
LOWER SANTA ANA R. HYDRO SUBUNIT YOIAO EAST COASTAL PLAIN HYDRO SUBAREA YOIAO													
5S/11W-36C 1 S 10- 2-63	--	7.9	4.77	--	--	--	0	212 3.47	--	1.9	--	--	--
6-17-64	67	8.1	4.90	49 2.45	13 1.07	34 1.48	0.08 0.10	211 3.46	53 1.10	2.2	1.0	0.05 0.02	--
5S/11W-36C 2 S 8- 6-64	--	8.1	4.56	52 2.59	11 0.90	32 1.39	3 0.08	217 3.56	45 0.94	21	12	--	27.8 27.4
5S/11W-36J 2 S 2-19-64	--	7.8	6.42	73 3.64	13 1.07	38 1.65	3 0.08	220 3.61	50 1.04	6.0	0.0	0.08 0.03	25 25
5S/11W-36K 2 S 11- 5-63	--	7.9	6.60	73 3.64	29 1.01	42 1.83	4 0.10	226 2.3	70 1.04	18	12	--	29.6 37.7
5S/11W-36K 5 S 8- 5-64	--	7.3	6.50	80 3.99	16 1.32	39 1.70	3 0.08	220 1.25	57 1.04	16	27	--	29.6 34.8
5S/11W-36L 3 S 8- 5-64	--	7.9	10.50	56 2.79	46 3.78	11.15 5.00	6 0.15	296 3.00	72 1.04	54	0.0	0.15 0.12	--
5S/12W-12C 1 S 10- 9-63	77	8.7	32.0	--	--	--	--	14.3 0.20	--	13	0.37	--	--
SANTA ANA RIVER HYDRO UNIT YOIAO													
SANTA ANA RIVER HYDRO UNIT YOIAO													

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents				parts per million equivalents per million percent reactivity value				Mineral constituents in parts per million					
				Calcium C. C. o	Magnesium M. g	Sodium N. a	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silicate SiO ₂	Total Evap 68°C Evap 0°C Compacted	
LOWER SANTA ANA R. HYDRO SUBUNIT YOLAU EAST COASTAL PLAIN HYDRO SUBAREA YULAU																	
5S/12W-12C 1 S 6-19-64	--	8.2	33u	0.10	0.08	1	73	0.17	0.03	0	157	0.31	14	0.0	0.10	--	
5S/12W-13A 2 S 2-21-64	--	7.6	15000	45.21	906	384	3100	25	0.64	0	226	6.97	6810	0.0	0.42	13 13000 3843	
				21	31.58	134.79	0.64	15	64	3.70	14.51	192.04	2	7	91	--	
																120.47	
5- 1-64	6.8	7.5	17200	9.68	39.2	3500	32	0	561	917	726.7	0.0	0.1	0.33	--	14500 4030	
				48.30	32.4	152.18	0.82	21	14	4	9.19	19.09	205.49	8	88	--	
																13372	
5S/12W-13A 3 S 11- 1-63	--	7.5	29500	15.36	56.5	5800	11	0	6.2	1.02	25.44	1.222	12482	0.0	0.1	0.60	12 23844 6161
				76.65	46.47	252.18	0.28	20	12	67	7	351.99	7	93		21659	
--	7.3	36000	1884	1308	8625	120	0	516	872	18.16	19500	0.0	0.4	1.52	14 38080		
			94.11	107.57	375.02	3.07		1	1	8.46	54.9	54.90	3	95		32579	
				16	19	65	1										
5S/12W-13A 4 S 11- 1-63	--	8.1	650	36	15	90	5	0	171	45	116	0.0	0.2	0.13	1.0	396 152	
				1.80	1.23	3.91	0.13	25	17	55	2.80	0.94	3.27	13	47	--	
																4.07	
--	8.2	600	2.00	4.0	18	73	4	0	201	3.29	0.81	9.2	0.0	0.2	0.18	1.5 374 174	
																380	
5S/12W-13A 5 S 10-31-63	--	7.9	1325	6.7	18	210	6	0	112	6.9	376	0.0	0.4	0.13	1.6 876 241		
				3.34	1.48	9.13	0.15	24	10	65	1.84	1.44	10.60	13	76	--	
																81.8	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reductance value						Mineral constituents in parts per million					
				Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	TDS
Date sampled				mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	Total hardness as CaCO ₃
LOWER SANTA ANA R. HYDRO SUBUNIT YOLAO EAST COASTAL PLAIN HYDRO SUBAREA YOLAO															
5S/12W-13A 5 S 2-21-64	--	8.2	610	31	91	3	0	149	41	105	0.0	0.06	0.15	14	382
				1.055	0.96	0.08	3.96	11	63	3.9	2.44	2.96	4.7		367
5- 1-64	--	8.2	610	29	72	3	0	145	46	67	0.0	0.04	0.08	--	304
				1.045	0.49	0.08	3.13	10	61	2.38	0.96	1.89	3.6		97
5S/12W-13A 6 S 10-31-63	--	7.9	1800	103	36	5	0	162	103	566	0.0	0.02	0.18	14	1302
				5.014	2.96	0.13	12.26	14	60	2.66	2.14	15.96	77		405
2-21-64	--	8.2	680	43	105	2	0	155	43	121	0.0	0.04	0.18	14	398
				2.015	0.25	0.05	4.057	65	65	2.54	0.90	3.41	50		120
5- 1-64	--	8.2	1130	50	157	4	0	160	74	254	0.0	0.04	0.12	--	408
				2.50	1.81	0.10	6.83	16	61	2.62	1.54	7.16	63		216
5S/12W-13A 7 S 10-31-63	--	8.2	335	8	70	2	0	185	3	22	0.0	0.08	0.15	13	636
				0.40	0.16	0.05	3.04	11	83	3.03	0.06	0.62	17		640
2-21-64	--	8.5	320	0.35	0.08	3.00	0.03	0.03	1	182	8	14	0.0	1.0	216
				10	2	87	1	87	83	2.98	0.17	0.59	5		28
5- 1-64	--	8.4	380	8	75	1	6	178	2	26	0.0	0.08	0.10	--	205
				0.40	0.08	3.026	0.03	0.20	86	0.92	0.04	0.73	1		212
				11	2	86	1	86	86	0.5	0.75	1.19			22
															232
															207
															236
															24
															207

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reiontance value				Mineral constituents in parts per million				Y0100 SANTA ANA RIVER HYDRO UNIT	
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	
Date sampled				Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	
LOWER SANTA ANA R. HYDRO PLAIN SUBUNIT YOLAO													
FAST COASTAL PLAIN HYDRO SUBUNIT YOLAO													
6S/ 8W- 5F 2 S 3- Q-64	--	7.8	9.77	84	25	84	0	285	150	73	23.0	0.03	645
6S/ 9W- 1L 1 S 3-12-64	--	7.3	1240	4.0	19	4.2	0.06	3.65	0.08	2.06	0.37	0.03	629
6S/ 9W- 1L 1 S 2-19-64	--	7.2	1130	92	26	120	5	0	260	149	37.0	0.3	3.7
6S/ 9W- 2A 4 S 2-19-64	--	8.1	1125	4.0	14	83	27	0.13	0.26	3.33	4.20	0.60	831
6S/ 9W- 2D 1 S 3-17-64	--	7.6	716	4.7	13	94	0	0	1.15	34	34	0.5	337
6S/ 1W- 1E 2 S 4-10-64	--	8.4	506	2.35	1.07	4.09	0.08	3.65	1.08	1.92	2.26	0.01	754
6S/ 1W- 1L 1 S 1-14-63	--	7.7	884	5	0	113	1	0.03	0.27	2.84	0.19	1.75	0.31
4-11-64	--	8.0	861	0.25	0.25	4.91	0.91	95	1	1.73	9	62	0.9
				45	45	80	2.14	2.14	2	--	196	2.21	0.0
				--	--	45	2.74	0.05	31	35	4.60	1.35	0.08
				--	--	--	--	--	--	193	--	4.7	14
				--	--	--	--	--	--	1.33	3.16	--	551

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (V)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaaction value						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	TDS	Evd 80°C
Date sampled				CO ₃	Mg	K	Na	HCO ₃	CO ₃	SO ₄	C ₁	F	B	S ₀	S ₀	S ₀	Computerd Co.C.3
LOWER SANTA ANA R. HYDRO SUBUNIT YOLAU EAST COASTAL PLAIN HYDRO SUBAREA YOLAU																	
SANTA ANA RIVER HYDRO UNIT YOLAU																	
65/10W- 4B 1 S 6-16-64	--	8.3	380	14 0.70	1 0.08	1 3.30	1 0.03	2 0.07	2 2.90	30 0.62	15 0.42	0.0 0.08	0.12	--	24.8	3.9	
65/10W- 5B 3 S 6-16-64	70	8.2	430	35 1.75	10 0.82	41 1.78	2 0.05	0 1	0 72	15 1.10	20 0.56	0.0 0.02	--	--	22.7	12.9	
65/10W- 5K 2 S 10- 3-63	--	8.3	342	15 0.75	4 0.33	52 2.26	1 0.03	0 2.34	0 0.71	14.3 0.37	34 0.4	0.0 0.04	0.10	1.8	25.8	23.2	
65/10W- 5K 3 S 10- 3-63	--	8.3	930	101 5.04	20 1.64	79 3.43	5 0.13	14 0.47	14 4.08	24.9 3.00	34 2.68	0.0 0.02	0.10	1.8	23.1	5.4	
65/10W- 6B 2 S 10- 9-63	77	7.6	627	--	--	--	1 5	40 5	29 40	11 29	11 26	0.0 0.02	0.10	2.7	20.8	3.34	
11- 5-63	--	8.0	800	51 2.54	24 1.97	39 1.05	2 0.05	0 1	0 27	21.9 5.8	45 0.94	0 1.61	--	--	6.09		
6-16-64	--	8.1	570	52 2.59	19 1.56	38 1.65	2 0.05	0 28	0 1	22.8 3.74	55 1.15	0.0 1.10	0.05	0.05	38.2	22.6	
65/10W- 6H 1 S 7-19-64	--	7.9	1230	138 6.89	27 2.22	60 2.61	4 0.10	0 22	0 1	22.1 3.62	27 7.50	0.6 0.01	0.07	0.07	34.1	20.8	
																31.8	
																97.3	45.6
																63.2	

TABLE E-I
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reaction value				Mineral constituents in parts per million						
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silicate	TDS	Total hardness	
Date sampled				CO ₃	Mg	K	Na	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	Evap. loss	Evap. loss	CaCO ₃ Computed
LOWER SANTA ANA R. HYDRO PLAIN SUBUNIT YOLAS EAST COASTAL YOLAS SUBAREA YOLAS																		
SANTA ANA RIVER HYDRO UNIT Y0100																		
6S/10W-6H 1 S 6-17-64	--	7.7	70U	53	30	45	0	231	38	87	0.0	0.02	0.07	--	410	256		
6S/10W-6H 2 S 8- 6-64	--	7.6	582	2.64	2.47	1.96	0.08	3.79	0.79	2.45						370		
6S/10W-6J 2 S 10- 7-63	--	8.2	335	58	17	41	0	219	54	64	0.0	0.04	0.10	18	360	215		
4- 8-64	--	8.3	353	2.89	1.40	1.78	0.05	3.59	0.75	1.80						344		
6S/10W-7B 2 S 4-22-64	68	7.6	520U	2.47	2.3	2.29	0.1	58	12	29						226	54	
6S/10W-7F 2 S 10- 8-63	--	8.6	53U	2.00	1	55	3	0	151	29	18	0.0	0.04	0.09	12	226	54	
6S/10W-7E 3 S 10- 9-63	--	9.6	51U	2.08	0.08	2.39	0.08	2.47	0.60	0.51						213		
6S/10W-7E 4 S 10- 9-63	--	7.8	720U	2.08	0.08	2.43	0.05	0	148	26	23	0.8	0.03	0.10	--	195	53	
				1.16	3.05	0.9	0	170	4	1985	0.0	0.01	0.33	15	3880	2218		
				9.54	13.26	0.23	0	2.79	5	55.98						3215		
				34.78	60	17	23		5	95							351	
				0.08	5.52	0.08	0.37	5.00	1.1	305	12	21	0.0	0.08	0.36	11	384	
				0.70	1.1	1	1.27	0.08	1	81	4	10					39	
				0.08	1	87	1	6	0.25	0.59								
				0.65	13	1	115	0.05	2.13	64	156	17	18	0.0	0.08	0.30	11	364
				0.08	11	1	87	1	38	4.6	0.35	0.51					319	
				4.47	88	1080	13	0	272	10	2500	0.0	0.1	1.18	12	5382	1479	
				22.31	7.24	46.96	0.33	6.61	4.46	0.21	70.50						4285	
				29	9				6	94								

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reactivity value				Mineral constituents in parts per million						
				Calcium C _o	Magnesium M _g	Sodium N _a	Potassium K	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silicate SiO ₂	TDS Evap 80°C			
YOL00																		
SANTA ANA RIVER HYDRO UNIT																		
LOWER SANTA ANA R. HYDRO SUBUNIT YOLAO																		
EAST COASTAL PLAIN HYDRO SUBAREA YOLAO																		
6S/10W-7J 4 S 4-21-64	--	7.8	4500	4.51 22.50	80 6.58 46 13	460 20.00 41	10 0.26 1	142 2.33 5 1	1631 0.25 95	0.0 0.1	0.35	16	3190	1455				
6S/10W-7N 3 S 4-21-64	--	7.5	11600	607 30.29	163 13.41 22	2180 94.79 10	20 0.51 6.8	554 9.08 7	4521 0.04 93	0.0 0.1	2.80	17	2730	2187				
6S/10W-70 3 S 4-21-64	6.7	7.5	9000	794 39.62	165 13.57	1250 54.35	15 0.38	250 4.10	1 0.02	3713 104.71	0.0 0.1	0.95	17	8320	7785			
6S/10W-8B 3 S 11- 5-63	--	8.1	1050	0.35 3	0.16 1	275 96	2 0.05	375 6.15	7 0.15	209 5.89 1	0.0 0.15 4.8	0.95	17	7100	2662			
--	7.9	1171	0	4 0.33 3	270 11.74 97	2 0.05	0	370 6.06 50	0 0.02	220 5.78 4.7	0.4 0.35 3	2.00	1.70	6079	6079			
R- 6-64	--														26			
6S/10W-8C 2 S 10- 4-63	--	8.6	1160	10 0.50	1 0.08	256 11.13	3 0.08	14 0.47	361 5.92	1 0.02	1.78 5.02 4.4	0.9 0.09 0.02	1.95	19	710	17		
--	9.7	1140	10	0.50 0.08	1 1.10	253 0.73	4 0.10	22 5.47	334 0.02	1 5.30	2.2 0.04	1.1 4.6	0.04	23	684	29		
4- 7-64	--														667			
6S/10W-8P 1 S 10- 4-63	6.8	7.8	6750	265 13.22	111 9.13	999 43.44	10 0.26	0	261 4.28	1 0.02	2120 59.78 93	31.0 0.50 1	1.40	25	4590	1118		
															3692			

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reactivity				Mineral constituents in parts per million				
				Calcium C _o	Magnesium M _g	Sodium N _a	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron Boron	Sulfur Sulfur	TDS Total Evap. B/C as Evap. 10°C as Computed CaCO ₃
Date sampled																
LOWER SANTA ANA R. HYDRO PLAIN SUBUNIT YO1AO																
EAST COASTAL PLAIN HYDRO SUBAREA YO1AI																
65/10W- 9E 1 S 10- 2-63	--	9.5	1342	6 0.30	0 2	0 12.87	4 0.10	8 0.27	382 6.26	37 0.77	198 5.58	1.3 0.02	0.86 0.82	19 --	808 759	
4-15-64	--	9.2	1261	7 0.35	0 3	0 11.87	2 0.05	48 1.60	272 4.46	33 0.69	194 5.47	1.5 0.02	0.82 0.82	--	706 18	
65/10W- 9E 2 S 10- 2-63	--	8.6	695	5 0.25	0 4	0 9.6	1 0.03	21 0.70	152 3.00	36 1.36	83 0.04	1.5 0.02	1.1 2.34	17 34	694 398	
4-15-64	--	8.7	668	5 0.25	0 4	0 9.6	1 0.03	18 0.60	150 3.75	18 0.06	83 2.34	3.0 0.05	1.0 0.05	17 1.0	447 415	
65/10W- 9M 1 S 10- 3-63	--	8.5	1316	10 0.60	1 4	1 11.87	2 0.05	5 0.17	273 4.28	5 1	279 3.5	0.0 0.06	1.2 1.34	--	377 377	
4- 7-64	80	8.6	1318	11 0.55	7 4	3 1.94	12 0.08	12 0.40	283 4.11	12 3	251 3.2	2.0 0.03	1.2 0.18	1.30 0.03	--	756 21
65/10W- 9M 2 S 10- 3-63	--	8.8	877	5 0.25	1 3	2 9.6	2 0.05	16 0.53	190 4.00	2 1	244 0.02	1.36 3.84	1.2 0.02	0.91 0.02	21 4.46	722 495
4- 7-64	79	8.8	858	6 0.20	0 4	2 9.6	2 0.05	14 0.47	184 3.82	14 6	233 4.45	1.5 0.15	1.4 0.02	1.40 4.49	--	513 472
SANTA ANA RIVER HYDRO UNIT																
YO100																

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value				Mineral constituents in parts per million								
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Ferrous iron	Boron	Silica	
Date sampled				CO ₃	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	B	SiO ₂		
LOWER SANTA ANA R. HYDRO SUBUNIT YOLAN																
FAST COASTAL PLAIN HYDRO SUBUNIT YOLAN																
6S/10W-9M 3 S 10- 3-63	--	8.7	1597	1.0 0.16	2 1.4-22	3 0.08	14 0.47	3 3.84	0 0.02	372 10.49	1.3 1.01	1.06 1.0	18 1.00	885 864	33	
4- 7-64	81	8.7	1567	1.0 0.25	3 1.4-20	4 0.10	1.0 0.57	17 3.67	0 2.24	390 11.00	3.9 0.06	1.00 0.88	-- 30	877 582	38	
6S/10W-17F 3 S 7-24-64	--	8.7	1016	6 0.30	1 0.08	228 9.91	2 0.05	22 0.73	207 3.39	11 0.23	202 5.70	1.0 0.02	0.96 0.02	862 30	606	19
6S/10W-17E 2 S 8- 6-64	--	7.0	9681	536 26.75	181 14.89	1380 60.00	20 0.51	144 7.36	0 2	3500 98.70	12.0 0.19	1.04 0.19	1.50 0.97	6035 5718	2084	
6S/10W-17M 2 S 4-23-64	--	7.8	9100	216 1.0-78	253 20.81	1850 8.0-44	45 1.15	0 9.44	574 10.41	512 10.66	3245 91.51	0.0 0.0	1.79 1.0	23 82	6648 6428	1581
6S/10W-18A 1 S 4-27-64	--	7.9	6000	533 26.60	98 8.06	690 30.00	13 0.33	0 2.57	157 0.06	3 62.01	2199 96	0.0 0.0	0.51 0.51	17 17	4116 3631	1734
6S/10W-18K 7 S 4-24-64	--	7.5	18500	838 41.82	367 30.18	3700 160.88	60 1.53	0 1.53	562 9.21	1 0.02	7870 221.93	0.0 0.0	3.50 0.01	18 0.01	14240 13134	3603
6S/11W-1A 3 S 8- 3-64	7.	8.2	340	2 0.10	1 0.08	84 3.65	1 0.03	0 0.23	189 3.10	11 0.23	14 0.39	0.0 0.0	0.15 0.10	-- 10	250 206	9

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (1)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaachance value				Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Chloride	Sulfate	Nitrate	Fluoride	Boron	Silica	T.D.S. Evd 180°C as Caco ₃	
Date sampled				Na	K	CO ₃	HCO ₃	SO ₄	NO ₃	F	B	SiO ₂			
Y0100															
SANTA ANA RIVER HYDRO UNIT															
LOWER SANTA ANA R. HYDRO SUBUNIT YOLAO															
EAST COASTAL PLAIN HYDRO SUBAREA YOLAO															
6S/11W-1B 2 S 8- 3-64	70	8.4	34.5	0.30	0.16	2	75	1	2	178	5	21	1.0	234	
				8	4	3.26	0.03	0.07	2.92	0.10	0.59	0.02	--	23	
						87	1	2	79	3	16	1		201	
8-19-64	--	7.5	36.5	0.45	0.45	0	75	1	0	188	11	16	0.0	--	
				12	12	3.26	0.03	0.03	3.08	0.23	0.45	0.12		23	
6S/11W-1F 2 S 10- 4-63	--	7.6	33.67	4.1	82	119	9	0	95	105	975	2.6	0.15	29	
				21	21	5.17	0.23	1.56	2.19	11	27.50	0.04		205	
6S/11W-1F 2 S 10- 4-63	--	7.5	2058	5.2	87	87	6	0	123	131	530	6.0	0.1	2895	
				63	63	4.28	0.15	2.02	2.73	14	14.95	0.10		1361	
4- 8-64	66	7.5	11.63	5.2	3.78	19	1	10	10	14	76	1		1779	
				59	22	4.28	0.15	2.02	2.73	14	14.95	0.10		1727	
5S/11W-1J 4 S 10- 2-63	--	9.0	43.6	7	1	97	2	24	214	1	14	1.4	0.09	796	
				2	0.35	0.08	4.22	0.05	0.80	3.51	0.02	0.39	0.02		1106
--	8.9	44.1	9	0	97	2	19	216	1	19	1.6	0.07	--	252	
4-15-64	--	8.9	0.45	10	4.22	0.05	0.63	3.54	0.02	0.54	0.03	0.1		277	
6S/11W-1J 5 S 10- 1-63	--	8.8	42.1	28	5	55	3	10	96	45	1.0	0.04	0.06	231	
				33	10	0.41	2.39	0.08	0.33	1.57	1.00	1.27	0.02	264	
--	8.8	45.5	38	4	49	3	12	99	46	50	0.0	0.02	0.05	112	
4-15-64	--	8.90	0.33	43	2.13	0.08	0.40	1.62	0.96	1.41	37	32	--	251	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				Mineral constituents in				
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Mineral constituents in
Date sampled												parts per million
LOWER SANTA ANA R. HYDRO SURUNIT YO1A1												
6S/11W-1U 6 S	--	10.5	7510	9.28	1.1	6.12	1.7	1.2	0	203	24.00	3.7
10- 2-63				4.6-31	0.90	26.61	0.43	0.40	4.23	4.06	67.68	0.03
				62	1	36	1	1	6	6	94	9
												5101
												2362
												4196
												4196
												4562
												2194
												3794
												3794
												55
												55
												329
												329
												307
												307
												317
												317
												290
												290
												352
												352
												298
												298
												3648
												2084
												3092
												3092
												9178
												3267
												6681
												6681
												6652
												2736
												5118

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per milliliter reagent value						Mineral constituents in parts per million						
				Calcium CO ₃	Magnesium Mg	Sodium Na	Potassium K	Carbon CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Sulfur S	Total hardness as CaCO ₃
LOWER SANTA ANA R. HYDRO SUITE UNIT YOLAJ EAST COASTAL PLAIN HYDRO SUBUNIT YOLAJ																
6S/11W-10 4 S 4-14-64	--	7.5	12346	1259	233	1362	17	0	151	587	4420	5.0	0.6	0	--	9540 4102
6S/11W-10 5 S 12-17-63	63	8.7	900	62.82	19.16	59.22	0.43	4.2	2.47	12.22	124.64	0.08	--	--	7958	52
4-14-64	--	7.9	2203	2724	57	168	39	0	20	238	--	64	--	--	--	
6S/11W-10 6 S 4-14-64	69	9.1	556	11.18	4.69	7.30	1.00	4.6	0.67	3.90	1.80	1.80	0.21	--	--	
6S/11W-10 7 S 12-17-63	63	7.9	580	12	2	122	2	29	226	2	223	19.0	0.7	0.21	--	1566 794
4-14-64	--	8.3	542	0.16	5.30	0.05	0.97	3.0	0.1	17	6.29	0.31	1	--	--	1500
6S/11W-10 8 S 12-17-63	--	7.7	11400	4.7	9	4.7	3	0	159	17	2.07	0.07	0.50	--	--	315 38
4-14-64	--	7.5	14750	2.35	0.74	2.04	0.08	3.9	50	1.71	2.06	0.06	0.07	--	--	323
6S/11W-10 9 S 12-17-63	--	7.7	11400	--	--	1900	--	82.61	2.80	1.71	127.01	4504	--	--	--	149
4-14-64	--	7.5	14750	1330	275	1680	23	0	166	658	5250	5.6	0.6	0.15	--	290 155
				66.37	22.62	73.05	0.59	4.5	2.70	13.70	148.05	0.09	--	--	--	280
										8	90					3790
																4453
																10540
																9304

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity value						Mineral constituents in parts per million								
			pH	Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfate	Total hardness	TDS
Date sampled			C _o	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	B	F	CaCO ₃	CaCO ₃	CaCO ₃	
LOWER SANTA ANA R. HYDRO SUBUNIT YO100 EAST COASTAL PLAIN HYDRO SUBAREA YO1AO																	
6S/11W-1G 9 S 12-12-63	63	7.6	9600	--	--	1610	70.00	--	0	178 2.92	--	3780 106.60	--	--	--	3055	
4-14-64	--	7.4	8718	713	144	945	14	0	126 2.07	351 7.31	2820 79.52	0.0	0.5	0.11	--	6688 2373	
6S/11W-3J 1 S	--	7.4	6400	3558	11.84	41.09	0.36	13	46	2	8	89	--	--	5050		
6-23-64				741	165	475	11	0	256	176	2230	0.0	0.2	0.20	--	538 2530	
6S/11W-3R 2 S 10-2-63	77	8.0	1974	3698	13.57	20.65	0.28	19	29	6	4.20	3.66 5	62.89 89	--	3924		
				52	32	278	4	--	343	0	471 13.28	1	0.4	0.38	16	344	
				22	24	2.63	12.09	0.10	14	63	30	70	--	--	1102 1056		
				2100	84	47	305	5	0	347	6	553	0.0	0.4	0.50	--	
				4.19	3.87	13.26	0.13	18	62	1	27	1	15.59 73	--	1310 403		
				20	1.9	4.03	0.10	25	1	21	5	74	--	--	1172		
6S/11W-11G 1 S 6-17-64	68	7.7	1550	142	60	92	4	0	199	37	419	3.0	0.7	0.13	--	987 601	
6S/11W-12R 2 S 10-9-63	--	7.3	10900	729	195	1500	15	0	183	459	3723	0.0	0.1	0.21	13	855 8422 2623	
				3638	16.04	65.22	0.38	16	55	3.00	9.56	104.99	--	--	6724		
				31	14	55	3	31	14	3	8	89	--	--	6662 2269		
4- R-64	--	7.0	9030	655	154	1097	14	0	182	351	3010	0.0	0.5	0.22	--	5371	
				3268	12.66	47.60	0.36	14	51	3	8	89	--	--			

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				Parts per million equivalents per million percent reactivity value				Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Sulfur	Boron	TDS
Date sampled																Total hardness as CaCO ₃
LOWER SANTA ANA R. HYDRO SUBUNIT YOLAO EAST COASTAL PLAIN HYDRO SUBAREA YOLAI																5950
SANTA ANA RIVER HYDRO UNIT YO100																5950
6S/11W-12G 1 S 12-12-63	63	7.6	20000	--	--	4130	--	0	184	--	--	--	--	--	--	5950
4-15-64	--	7.0	22410	1739	3436	3312	25	0	165	1123	8600	14.0	0.30	--	17520	6137
6S/11W-13C 2 S 4-13-64	--	4.0	12500	86.78	35.86	144.01	0.64	2.70	23.38	242.52	0.23	--	--	--	15332	3792
6S/11W-13D 1 S 4-13-64	--	7.3	25840	54.14	1085	263	1.7	0	0	1.67	4750	11.0	0.5	0	--	8124
6S/11W-13F 4 S 6-27-64	--	7.1	12680	57.88	1160	591	39	0	1.8	1058	10350	12.0	0.9	1.24	--	7646
6S/11W-20D 1 S 4-29-64	69	8.0	880	55.29	1108	301	1324	0	221	62	4590	9.0	0.5	0.60	--	19790
SANTIAGO HYDRO SUBAREA	--	7.4	987	4.0	24.75	57.57	0.31	3.62	1.29	129.44	0.15	--	--	--	4005	4005
5S/ 7W-19R 1 S 3-17-64	--	--	--	3.79	76	30	76	0	195	56	184	0.0	0.06	0.12	18	7516
				3.39	2.47	3.20	0.10	3.20	1.17	5.19	54	--	--	--	616	313
									33	12	54	--	--	--	541	
												30	--	--	--	
												0.85	--	--	--	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per cent					Mineral constituents in parts per million							
				Calcium C _o	Magnesium M _g	Sodium N _a	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F			
Y0100																
SANTA ANA RIVER HYDRO UNIT																
Y01A2																
LOWER SANTA ANA R. HYDRO SUBUNIT Y01A2																
SANTIAGO HYDRO SUBAREA																
5S/ 7W-29E 1 S 3-17-64	--	7.6	987	113 5.64 51	3.04 2.22 28	0.01 0.01 1	4 0.03 54	0 6.03 39	0 0.82 7	29 0	0.02 0.09	13	672			
5S/ 8W-1N 1 S 3-17-64	--	7.7	1271	--	--	--	--	0 4.97	--	49 1.38	--	--	636			
5S/ 8W-13C 1 S 3-17-64	--	7.4	840	--	--	--	--	0 5.11	--	25 0.71	--	--	--			
Y01A3																
NARROWS HYDRO SUBAREA																
SANTA ANA																
3S/ 8W-25J 1 S 4- 6-64	--	7.9	1723	174 8.68 44	53 4.36 22	0.15 0.15 1	6 6.49 32	0 8.62 33	396 8.62 44	157 4.43 23	0.6 0.03	19	1203			
3S/ 8W-31F 1 S 4- 6-64	--	7.8	1117	--	--	--	--	0 3.03	185 6.006	291 2.59	92 --	--	--			
3S/ 8W-33K 2 S 4- 6-64	--	7.6	1564	135 6.74 39	63 5.18 30	0.10 0.10 1	4 0.08 1	0 5.85 33	357 8.58 48	115 3.24 18	0.5 0.08	17	1097			
3S/ 8W-34M 1 S 4- 6-64	--	7.6	1529	--	--	--	--	0 5.85	--	128 3.61	--	--	1051			

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per percent reaction						Mineral constituents in parts per million						
			Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	TDS	
Date sampled	pH	CO ₃	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	F	Ca	Total Evap 80°C	Evap 105°C	Calculated CaCO ₃	
SANTA ANA RIVER HYDRO UNIT Y0100															
LOWER SANTA ANA R. HYDRO SUBUNIT Y01A3															
4S/ 9W- 1C 1 S 4- 6-64	-- 7.9	1694	1.36 6.79	6.1 5.02	1.48 6.44	0.5 0.13	0 6.13	352 7.33	193 5.44	1.8 0.03	1.0 0.03	0.19 29	8 1090	1151 1090	
4S/ 9W- 1E 2 S 4- 6-64	-- 7.6	1936	1.57 7.83	6.2 5.10	1.88 8.17	-- 39	0 6.90	388 8.08	233 6.57	1.6 0.03	1.1 0.03	0.27 37	12 1250	647 1295	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalent percent reacione value						Mineral constituents in parts per million						CaCO ₃		
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fuoride	Boron	Silica	Total hardness as Evd 80°C	Evd 105°C	
Date sampled				Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	S	O ₂	CaCO ₃		
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01BU																		
1S/ 5W-6D 1 S 4-10-64	--	8.0	353	50	6	19	0	212	6	8	7	0.3	0.01	--	236	150		
1S/ 5W-7N 1 S 4-10-64	--	8.1	348	2.50	6	17	2	0	196	11	8	10	0.3	0	--	202	150	
1S/ 5W-15G 1 S 4-10-64	--	7.7	428	2.50	0.49	0.14	0.05	3.21	0.23	0.16	4	6	0.23	0.16	218	201		
1S/ 5W-16J 1 S 4-10-64	--	7.7	420	3.24	65	16	2	0	189	30	12	35	0.4	0.02	--	187		
1S/ 5W-21B 1 S 4-10-64	--	7.9	421	66	14	2	0	3.10	0.62	0.34	12	12	0.56	0.02	--	295		
1S/ 6W-80 1 S 9-28-64	--	7.4	330	40	9	20	2	0	182	28	12	38	0.3	0.02	--	259		
1S/ 6W-11B 1 S 3-31-64	--	7.7	359	2.00	0.74	0.87	0.05	2.88	0.21	0.34	14	8	0.61	0.02	--	277		
1S/ 6W-11N 1 S 12-28-63	--	7.9	366	55	20	24	1	82	6	9	4	14	0.4	0.02	--	253		
				52	7	17	2	0	176	10	11	8	0.2	0.05	--	196		
				0.59	0.58	0.74	0.05	3.33	0.12	0.31	8	9	0.15	0.03	--	187		
				65	15	19	1	85	3	8	4	11	0.13	0.05	--	230		
				55	6	15	1	0	200	5	11	8.6	0.2	0.02	--	204		
				0.49	0.49	0.65	0.03	3.28	0.10	0.31	8	14	0.14	0.02	--	228		
				70	13	17	1	86	3	8	4	11	0.13	0.05	--	200		

TABLE E-I
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reactivity				Mineral constituents in parts per million							
				Calcium C _o	Magnesium M _g	Sodium N _a	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Sulfur S _o	Total hardness TDS _{105°C}	Excess bicarbonate E _{105°C}	Total hardness TDS _{204°C}	Excess bicarbonate E _{204°C}
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B1																			
CHINO HYDRO SUBAREA																			
15/ 6W-11N 1 S 3-31-64	--	7.7	353	53 2.64	6 0.49	0.70 13	0.05 18	0 0	206 3.38	6 0.12	10 0.28	9 0.15	0.3 0.4	0.03 0.03	--	228	157		
15/ 6W-12P 1 S 3-31-64	--	7.9	345	4.8 2.40	6 0.49	0.78 13	0.05 21	0 0	193 3.16	10 0.21	9 0.25	10 0.16	0.3 0.4	0.03 0.03	--	204	145		
15/ 6W-16A 1 S 3-11-64	--	8.3	345	4.7 2.10	8 0.66	0.74 19	0.05 21	7 0	163 2.23	10 0.21	11 0.31	7.5 0.12	0.1 0.12	0 0	--	220	198		
15/ 6W-17G 1 S 9-28-64	--	7.9	340	4.1 2.05	10 0.82	19 0.83	0.05 22	2 0	183 3.00	11 0.23	19 0.54	7 0.11	0.2 0.11	0.02 0.02	--	228	138		
15/ 6W-20Q 1 S 3-11-64	--	8.1	358	4.3 2.15	9 0.74	0.83 20	0.03 21	0 0	165 2.70	6 0.12	10 0.28	5 0.08	0.4 0.08	0.08 0.08	--	198	144		
15/ 6W-28-64	--	7.8	335	3.6 1.80	15 0.52	1.23 34	0.05 14	0 0	184 3.02	10 0.21	12 0.34	8 0.13	0.4 0.13	0.10 0.10	--	199	144		
15/ 6W-28N 3 S 3-11-64	--	8.2	424	5.7 2.84	6 0.49	0.91 11	0.05 21	2 0	196 3.21	6 0.12	26 0.73	17 0.27	0.1 0.17	0 0	--	258	167		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity				Mineral constituents in parts per million								
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfur	TDS
Date sampled				Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	SiO ₂	Evap 180°C os Computer	Total hardness Caco ₃		
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B1 CHINO HYDRO SUBAREA																
1S/ 6W-28N 3 S 9-28-64	--	7.9	400	4.7	2.3	0.05	0	207	7	25	14	0.15	--	258	167	
1S/ 6W-29R 1 S 3-11-64	--	8.1	436	5.9	5	0.05	0	3.39	0.15	0.71	0.23	0.16	--	232		
				2.94	0.41	1.00	0.05	76	3	16	5	16	--	269	168	
				6.7	0.9	2.3	1	72	3	18	7	20	0.09	--		
				4.18	5.8	4	2.3	0	198	7	27	20	0.3	0.01	--	
				2.89	0.33	1.00	0.05	3.25	0.15	0.76	0.32	17	0.01	--	241	
				6.8	8	2.3	1	73	3	17	7	20	--	--	161	
				7.7	410	1.56	1.09	0.05	0	197	5	31	16	0.08	--	
				3.9	35	24	1	3.23	0.10	0.87	0.26	20	0.08	--	256	
				9-28-64	1.75	3.5	19	2	0	197	5	31	16	0.08	--	
					1.56	1.09	0.05	72	2	72	2	20	0.08	--	239	
					1.39	24	0	0.10	0.10	0.87	0.26	6	0.08	--		
					3.9	24	0	0.10	0.10	0.87	0.26	6	0.08	--	264	
					2.63	29	8	1.6	1	148	8	2	0.02	0.03	166	
					1.45	0.66	0.70	0.03	2.43	0.17	0.23	0.03	--	--		
					51	23	25	1	85	6	8	1	--	--	230	
					1.55	0.49	0.78	0.03	2.44	0.17	0.17	0.02	0	--	160	
					54	17	27	1	87	6	6	1	0	--	106	
					1.55	0.49	0.78	0.03	2.44	0.17	0.17	0.02	0	--	145	
					54	17	27	1	87	6	6	1	0	--	144	
					50	14	26	2	0	210	4	35	26	0.02	0	144
					2.50	1.15	1.13	0.05	3.44	0.08	0.99	0.42	0	--	144	
					52	24	23	1	70	2	20	9	0	--	102	
					55	13	32	2	0	218	15	36	18	0.02	--	
					2.74	1.07	1.39	0.05	3.57	0.31	1.02	0.29	0.02	--	300	
					52	20	26	1	69	6	20	6	0	--	191	
															278	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million						
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride			
Date sampled	Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	TDS			
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0 CHINO HYDRO SUBAREA Y01B1																
1S/ 6W-34K 2 S 10-14-63	--	7.4	738	97	11	38	0	239	27	80	55	0.2	0	33	495	287
				4.84	0.90	1.65	0.05	3.92	0.56	2.26	0.89					
				65	12	22	1	51	7	30	12					
1S/ 6W-35A 1 S 3-31-64	--	8.3	346	52	7	15	2	177	15	6	0.4	0.02	--			4.61
				2.59	0.58	0.65	0.05	0.40	0.90	0.31	0.20	0.10				159
				67	15	17	1	10	74	8	5	3				
1S/ 7W-8N 1 S 3-31-64	--	7.8	334	46	9	12	1	0	184	13	8	9	0.4	0.03	--	227
				2.30	0.74	0.52	0.03	3.02	0.27	0.23	0.15					203
				64	21	14	1	82	7	6	4					
1S/ 7W-2UA 1 S 3-31-64	--	7.8	457	48	11	33	2	0	170	65	22	9	0.5	0.05	--	152
				2.40	0.90	1.43	0.05	2.79	1.35	0.22	0.15					
				50	19	30	1	57	27	13	3					
1S/ 7W-26P 1 S 3-11-64	--	8.3	357	45	9	19	2	10	185	12	10	5	0.1	0.03	--	197
				2.25	0.74	0.83	0.05	0.33	3.03	0.25	0.28	0.08				189
				58	19	21	0	76	6	7	2					
9-25-64	--	8.1	350	46	7	22	2	0	203	15	6	1	0.1	0	--	283
				2.30	0.58	0.96	0.05	3.33	0.31	0.17	0.02					274
				59	15	25	1	87	8	4	1					
1S/ 7W-35B 1 S 3-11-64	--	8.2	385	45	10	20	2	0	196	6	15	8	0.2	0.05	--	150
				2.25	0.82	0.87	0.05	3.21	0.12	0.42	0.13					
				56	21	22	1	83	3	11	3					
9-25-64	--	8.0	352	42	10	23	2	0	203	7	10	4	0.1	0	--	211
				2.10	0.82	1.00	0.05	3.33	0.15	0.28	0.06					203
				53	21	25	1	87	4	7	2					
SANTA ANA RIVER HYDRO UNIT Y0100																

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Mineral constituents in parts per million equivalents per million percent reactivity						Mineral constituents in parts per million							
			Specific conductance (micro-mhos at 25°C)	Calcium C a	Magnesium M g	Sodium N a	Potassium K	Carbonate HCO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silicate SiO ₂	Total Evap. 105°C Residue
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B1 CHINO HYDRO SUBAREA																
15/ 8W-14A 1 S 3-31-64	--	7.7	423	56	13	14	2	0	187	25	4.8	0.4	0.03	--	269	193
15/ 8W-15J 1 S 8-25-64	--	7.6	390	46	17	12	2	0	178	20	0.77	0.77	0.05	--	259	185
9- 1-64	--	7.2	366	52	12	12	2	0	181	22	38.0	0.3	0.05	--	263	231
9- 7-64	--	7.9	382	54	11	12	2	0	176	22	0.61	0.23	0.08	--	240	234
9-14-64	--	7.7	386	52	11	12	2	0	176	22	0.56	0.23	0.08	--	268	231
9-21-64	--	7.5	383	52	12	12	2	0	181	17	35.0	0.2	0.08	--	240	234
15/ 8W-28E 2 S 6-22-64	--	7.6	510	53	24	13	2	0	178	35	0.53	0.35	0.08	--	268	231
15/ 8W-28N 1 S 6-22-64	--	7.8	390	44	15	16	2	0	184	24	1.05	0.39	0.08	--	294	234
SANTA ANA RIVER HYDRO UNIT Y0100																
15/ 8W-14A 1 S 3-31-64	--	7.7	423	56	13	14	2	0	187	25	4.8	0.4	0.03	--	269	193
15/ 8W-15J 1 S 8-25-64	--	7.6	390	46	17	12	2	0	178	20	0.77	0.77	0.05	--	259	185
9- 1-64	--	7.2	366	52	12	12	2	0	181	22	38.0	0.3	0.05	--	263	231
9- 7-64	--	7.9	382	54	11	12	2	0	176	22	0.61	0.23	0.08	--	240	234
9-14-64	--	7.7	386	52	11	12	2	0	176	22	0.56	0.23	0.08	--	268	231
9-21-64	--	7.5	383	52	12	12	2	0	181	17	35.0	0.2	0.08	--	240	234
15/ 8W-28E 2 S 6-22-64	--	7.6	510	53	24	13	2	0	178	35	0.53	0.35	0.08	--	268	231
15/ 8W-28N 1 S 6-22-64	--	7.8	390	44	15	16	2	0	184	24	1.05	0.39	0.08	--	294	234

TABLE E-I
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million										
				Calcium C o	Magnesium M g	Sodium N a	Potassium K	Carbon dioxide CO ₂	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silicate SiO ₂	Total hardness TDS Evap. O ₂ mg Combined CaCO ₃				
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B1 CHINO HYDRO SUBAREA																				
SANTA ANA RIVER HYDRO UNIT Y01B1																				
15/ 8W-30J 1 S 6-22-64	69	7.6	620	55	34	18	2	0	230	61	23	35	0.2	0.08	--	398	277			
15/ 8W-33K 1 S 9- 3-64	--	7.7	450	2.74 43	2.80 44	0.78 12	0.05 1	1.27 20	0.65 60	0.56 10	9	3.3	0.2	0.08	--	341	205			
15/ 8W-35L 2 S 3-31-64	--	7.9	439	51	19	11	1	0	190	24	14	3.9	0.53	0.12	--	282	247			
15/ 8W-36H 1 S 9- 3-64	--	7.8	450	1.54 55	0.48 34	0.03 10	0	3.11 1	0.50 69	0.50 11	9	1.2	--	--	--	291	212			
25/ 5W- 7N 1 S 5- 8-64	--	7.2	1677	65	11	14	2	0	196	22	15	4.0	0.1	0.08	--	260	207			
25/ 6W- 5A 1 S 10-24-63	--	8.1	333	3.24 38	0.90 31	0.61 19	0.05 13	3.21 1	0.46 68	0.42 10	9	1.4	0.65	0.14	--	265	296			
6-17-64	--	8.7	330	1.45 53	70	132	3	0	341	213	14.3	300	0.8	0.09	--	1307	651			
25/ 6W-12M 2 S 10-24-63	--	7.2	912	1.80 69	0.74 3.13	0.83 1.13	0.05 0.03	5.59 3.00	4.43 0.27	4.84 0.12	2.1	2.6	4.84	0.12	--	1174	127			

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million				Total Evap 180°C as CoCO ₃		
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	
Date sampled				M g	M g	N a	K	C O ₃	HCO ₃	SO ₄	Cl	N O ₃	B	F	S i. o. 2	
MIDDLE SANTA ANA R HYDRO SUBUNIT YOLBO CHINO HYDRO SUBUNIT YOLBI																
SANTA ANA RIVER HYDRO UNIT YO100																
2S/ 6W-12M 2 S	--	7.5	903	77	40	65	1	0	339	85	30	0.7	0.11	--	584	357
5- 8-64				3.84	3.29	2.83	0.03	5.56	1.77	2.34	0.48				548	
				38	33	28		55	17	23	5				568	341
6-17-64	--	7.9	940	64	44	75	2	0	335	75	27	0.2	0.18	--		
				3.19	3.62	3.26	0.05	5.49	1.56	2.51	0.44				541	
2S/ 6W-14K 1 S	--	7.2	1197	96	51	110	0	0	397	139	120	4.3	0.9	--		
5- 8-64				4.79	4.19	4.78		6.51	2.89	3.38	0.69				828	449
				35	30	35		55	16	25	5				755	
2S/ 6W-210 1 S	--	8.0	859	55	11	99	4	0	100	79	162	0.3	0.3	0.13	--	487
10-24-63				2.74	0.90	4.30	0.10	1.64	1.64	4.57					182	
				34	11	53	1	21	21	58					460	
5- 8-64	--	7.4	1099	124	14	100	0	0	317	112	148	13	0.4	0.26	--	740
				6.19	1.15	4.35		5.20	2.33	4.17	0.21				367	
				53	10	37		44	20	35	2				664	
6-17-64	--	8.1	1050	66	35	107	3	0	258	114	149	7	0.2	--		309
				3.29	2.88	4.65	0.08	4.23	2.37	4.20	0.11				608	
				30	26	43	1	39	22	38	1				420	278
2S/ 6W-3U0 1 S	68	8.0	690	75	22	31	2	0	261	58	45	20	0.1	0.05	--	
6-17-64				3.74	1.81	1.35	0.05	4.28	1.21	1.27	0.32				381	
				54	26	19	1	60	17	18	5				497	
2S/ 6W-31D 2 S	--	7.6	782	110	9	48	3	0	316	64	48	24	0.4	0.01	--	
5- 8-64				5.49	0.74	2.09	0.08	5.18	1.33	1.35	0.39				462	
				65	9	25	1	63	16	16	5				312	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million							
				Calcium Co.	Magnesium Mg.	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silicate SiO ₂	TDS Evap 80°C	
MIDDLE SANTA ANA R HYDRO SUBUNIT YOLBU CHINO HYDRO SUBAREA YOLBU																	
25/ 7W- 2G 1 5 3-31-64	--	8.2	4.47	53	12	23	0.05	0	220	7	23	0.02	0	--	24.9	182	
				2.64	0.99	1.00	0.05	1	3.61	0.15	0.65	0.35	7				
				56	21	21			76	3	14						
9-28-64	--	8.1	4.60	48	12	26	1	0	234	0	22	14	0.01	0	--	25.0	
				2.40	0.99	1.13	0.03	1	3.84	0.13	0.62	0.23	5				
				53	22	25			82								
25/ 7W- 2M 2 5 9- 2-64	--	7.9	8.00	72	40	30	2	0	278	73	60	31	0.01	0.008	--	23.4	
				3.59	3.29	1.30	0.05	0	4.56	1.52	1.69	0.50	6				
				4.40	4.0	16	1		55	18	20						
25/ 7W- 20 1 5 3-11-64	--	8.1	5.26	62	15	24	2	0	222	8	33	42	0.02	0.03	--	23.8	
				3.09	1.23	1.04	0.05	0	3.64	0.17	0.93	0.68	3				
				57	23	19	1		67	3	17						
9-28-64	--	7.7	4.8U	36	17	28	2	0	228	43	38	26	0.06	0.008	--	510.0	
				1.8U	1.40	1.22	0.05	1	3.74	0.90	1.07	0.42	7				
				40	31	27			61	15	17						
25/ 7W- 3A 1 5 5-12-64	--	8.1	5.06	65	16	21	2	0	221	28	17	52	0.04	0.02	--	311.1	
				3.24	1.32	0.91	0.05	0	3.62	0.58	0.48	0.84	9				
				59	24	16	1		66	11	9						
25/ 7W- 4B 1 5 10-23-63	--	7.7	3.58	39	13	19	2	0	195	17	9	8	0.02	0.03	--	22.7	
				1.95	1.07	0.83	0.05	1	3.20	0.35	0.25	0.13	3				
				50	27	21			81	9							
5-12-64	--	7.7	3.43	41	10	17	2	0	182	17	8	9.0	0.04	0.03	--	20.3	
				2.05	0.82	0.74	0.05	1	2.98	0.35	0.23	0.15	4				
				56	22	20			80								

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents				parts per million equivalents percent reductance value				Mineral constituents in parts per million						
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silicate	TDS	Total Evap. Bicarb.	
Date sampled				Na	Na	K	Na	HCO ₃	HCO ₃	SO ₄	NO ₃	F	B	SiO ₂	SiO ₂	SiO ₂		
MIDDLE SANTA ANA R HYDRO SUBUNIT YOLBU CHINO HYDRO SUBAREA YO101																		
2S/ 7W-4B 2 S	--	7.8	3.61	4.3	1.1	0.74	0.05	2	0	179	1.9	13	0.1	0	--	227		
3- 9-64			2.15	0.90	23	1	0.74	0.05	2.93	0.40	0.37	0.15	0.1	0	--	202		
9-25-64	--	8.0	3.60	4.1	1.2	1.9	0.83	0.05	1	76	10	4	0.1	0.04	--	212		
9- 3-64	--	7.9	7.50	5.0	25	21	0.99	0.05	0	185	19	11	7	0.1	--	152		
2S/ 7W-9D 1 S	--	7.9	2.79	4.11	1.09	0.05	2.79	0.05	0	3.03	0.40	0.31	0.11	0.3	--	202		
3- 9-64	--	7.7	9.97	1.17	3.0	4.6	2.44	0.05	0	79	10	8	0.1	0.15	--	486		
2S/ 7W-10C 1 S	--	7.7	5.84	2.47	2.00	0.05	5.84	0.05	0	318	4.5	4.4	51	0.1	--	345		
3- 9-64	--	7.8	7.60	5.6	24	19	3.5	0.05	0.21	0.94	1.24	0.82	0.82	0.15	--	430		
9-25-64	--	7.8	4.99	1.00	4.6	3.9	3	0	0	63	11	15	10	10	--	630		
9- 25-64	--	7.9	1.000	1.70	0.08	1.78	4.47	0.05	0.21	1.42	2.51	0.97	0.97	0.1	--	569		
2S/ 7W-1UH 1 S	--	7.9	1.000	1.25	3.8	3.4	0.05	0.05	0	318	6.8	8.9	60	0.1	0.86	--	416	
9- 25-64	--	7.8	6.24	3.13	1.48	0.05	6.24	0.05	0	52	14	25	10	10	--	439		
2S/ 7W-1UH 1 S	--	8.0	8.55	1.09	2.4	3.0	5.44	1.97	1.30	0	3.30	6.5	84	102	0.1	--	576	
9- 2-64	--	7.6	10.44	6.22	22	15	1.09	1.97	0.05	0	5.41	1.35	2.37	1.65	0.1	--	734	
2S/ 7W-1UH 4 S	--	7.6	6.39	1.28	3.7	3.4	0.05	1.48	0.05	0	287	4.9	7.3	76	0.2	0.10	--	612
3- 9-64	--	7.6	6.39	3.04	1.48	0.05	5.88	1.48	0.05	0	4.70	1.02	2.06	1.23	0.1	--	610	
				58	28	14					52	11	23	14	14		504	
											320	7.0	7.4	80	0.2	0.32	--	677
											49	14	25	12	12		603	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value				Mineral constituents in parts per million				Y0100 SANTA ANA RIVER HYDRO UNIT Y0110 CHINO HYDRO SUBAREA Y0111 MIDDLE SANTA ANA R HYDRO SUBUNIT Y0110 CHINO HYDRO			
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride				
Date sampled	Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	SO ₂				
25/ 7W-10L 4 S 9-25-64	--	8.1	980	104 5.19	55 4.52	1.65 1.4	0.05	0	380 6.23	1.56 1.13	102 2.88	55 0.89	--	736 618 4.86	
25/ 7W-11M 1 S 10-23-63	--	8.0	943	106 5.29	40 3.29	30 1.30	2 0.05	0	320 5.24	44 0.92	177 2.17	103 1.66	0.03	--	584 560 4.29
5-12-64	--	7.7	582	67 3.34	23 1.89	20 0.87	2 0.05	0	212 3.47	24 0.50	40 1.13	58 0.94	0.01	--	363 339 2.62
25/ 7W-11D 1 S 10-23-63	--	8.1	779	92 4.59	29 2.38	30 1.30	2 0.05	0	266 4.36	60 1.25	75 1.58	0.3 1.21	0.06	--	496 475 3.49
5-12-64	--	7.8	753	93 4.64	28 2.30	26 1.13	2 0.05	0	258 4.23	59 1.23	75 1.52	0.5 1.21	0.07	--	507 465 3.47
25/ 7W-15A 1 S 10-23-63	--	8.2	337	42 2.10	8 0.66	22 0.96	2 0.05	12	178 0.40	12 2.92	55 0.25	0.5 0.17	0.04	--	209 195 1.38
25/ 7W-15Q 1 S 5- 8-64	--	7.0	914	120 5.99	31 2.55	43 1.87	2 0.05	0	423 6.93	30 0.62	70 1.97	4.9 0.79	0.4 0.06	--	594 553 4.27
25/ 7W-17D 1 S 5-12-64	--	7.9	570	72 3.59	20 1.64	19 0.83	2 0.05	0	245 4.02	31 0.65	60 0.62	22 0.97	0.01	--	378 347 2.62

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Mineral constituents in parts per million equivalents per million percent reacione						Mineral constituents in parts per million								
			Specific conductance (micro-mhos at 25°C)	Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fugitive	Boron	Sulfur	TDS	
Date sampled	Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	B	F	SO ₂	From 80°C	From 105°C	Ca		
MIDDLE SANTA ANA R HYDRO SUBUNIT YOLBU CHINO HYDRO SUBAREA YULBU																	
25/ 7W-17L 1 S 10-23-63	--	7.7	786	9.8 4.89	2.22 5.8	2.7 2.22	0.08 0.15	28 15	3 1	0 0.85	34 5.11	9.8 1.58	0.03 1.19	--	501	356	
5-12-64	--	7.6	780	9.6 4.79	2.47 5.7	3.0 1.13	0.08 0.08	26 13	3 1	0 4.97	36 0.94	103 1.02	0.05 1.66	--	483	363	
25/ 7W-2JL 1 S 3- 9-64	--	8.0	463	5.6 2.79	1.15 0.87	14 0.87	0.05 0.05	20 18	0 1	0 75	215 3.52	17 0.35	20 0.26	--	488	197	
25/ 7W-2JL 1 S 10-23-63	--	8.5	759	9.3 4.64	2.47 5.5	3.0 2.26	0.05 0.05	29 15	2 1	0 15	249 4.08	56 1.07	16 0.26	--	281	251	
5- 8-64	--	7.5	593	7.2 3.59	2.3 1.89	2.5 1.09	0.05 0.05	25 16	2 1	0 69	276 4.52	36 0.75	23 0.65	--	356	356	
25/ 7W-22K 1 S 10-23-63	--	8.3	711	9.2 4.59	2.4 1.97	2.9 1.26	0.05 0.05	24 16	2 1	0 59	281 4.61	21 0.44	41 1.16	--	477	477	
12-31-63	--	6.6	802	5.3 2.64	1.15 5.57	14 0.41	0.05 0.41	25 16	2 1	0 59	387 1.77	-- 1.77	85 2.71	0.02 0.08	--	405	274
5- 8-64	--	7.6	866	1.9 5.44	2.80 5.55	34 1.52	0.05 0.05	35 15	2 1	0 72	4.30 7.05	32 0.67	49 1.36	0.03 0.69	--	572	412
																515	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million						
				Calcium C _a	Magnesium M _g	Sodium N _a	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Sulfur S _{o2}	Total hardness as CaCO ₃ Computed
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B1 CHINO HYDRO SUBAREA																
2S/ 7W-23E 1 S 10-23-63	--	8.2	758	1.02	5.9	1.97	1.30	0.05	0.80	4.92	0.79	1.02	0.40	0.04	--	480
					61	23	15	1	9	58	9	12	11			460
10-23-63	--	8.1	126	0.9	2.0	2.9	2	0	322	37	35	54	0.3	0.03	--	337
					4.044	2.030	1.026	0.025	5.28	0.77	0.79	0.87				466
					55	29	16	1	67	10	13	11				433
5- 8-64	--	7.5	731	0.88	3.3	2.6	2	0	334	40	39	55	0.4	0.03	--	355
					4.39	2.71	1.13	0.05	5.47	0.83	1.10	0.89				496
					53	33	14	1	66	10	13	11				448
2S/ 7W-27A 1 S 10-23-63	--	7.4	774	1.20	2.6	5.9	2	0	524	39	45	38	0.3	0.05	--	415
					5.99	2.30	2.27	0.05	8.52	0.61	1.021	0.61				585
					55	21	24	7	76	7	11	5				585
5- 8-64	--	7.5	938	1.15	3.2	5.5	2	0	503	43	45	40	0.5	0.02	--	601
					5.74	2.63	2.39	0.05	8.20	0.90	1.27	0.65				419
					53	24	22		75	8	11	6				580
6-17-64	--	7.9	1084	0.9	0.9	5.6	2	0	516	54	60	0.1	0.11	--	694	
					2.050	7.32	2.43	0.05	8.46	1.12	1.73	0.77				627
2S/ 7W-20G 1 S 3- 9-64	--	8.0	4885	5.9	1.5	2.0	2	0	232	30	20	11	0.2	0.05	--	283
					2.54	1.23	0.87	0.05	3.80	0.62	0.16	0.18				209
					58	24	17	1	74	12	11	3				271
9-15-64	--	8.2	510	6.5	1.1	2.3	2	0	239	27	24	0.2	0	--	276	
					3.24	0.90	1.00	0.05	3.92	0.56	0.13	0.13				207
					62	17	19	1	75	11	11	3				275

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Mineral constituents in parts per million equivalents per million percent reacione value						Mineral constituents in parts per million						
			Specific conductance (micro-mhos at 25°C)	Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fuoride	Boron	Silica
Date sampled	Ca	Mg	K	Na	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂			
MIDDLE SANTA ANA RIVER HYDRO SUBUNIT YULBU CHINO HYDRO SUBAREA YULBU															
2S/ 7W-3UH 1 S 3- 9-64	--	7.8	64.9	84 4.019	1.32 1.59	2 0.05	0 21	35 1.32	0 1.42	296 4.085	10 0.16	0.08 0.08	--	4.00	276
2S/ 7W-31B 1 S 5- 8-64	--	7.5	82.7	115 5.074	1.3 1.07	2 0.05	0 27	59 2.57	0 5.59	341 2.027	10 1.10	0.08 0.44	--	3.80	34.1
2S/ 7W-32K 3 S 10-24-63	--	8.0	33.1	15 0.075	4.1 3.37	1 0.03	0 35	54 2.35	0 2.44	149 0.44	21 0.18	0.07 0.11	--	55.3	53.2
	--	8.1	31.0	16 0.080	3 0.025	1 0.03	0 6.7	50 2.07	0 2.29	140 0.48	23 0.17	0.36 0.17	--	22.0	20.6
	--	7.4	174.5	20.9 1.043	85 6.044	3 0.06	0 18	86 3.74	0 35	444 4.08	102 2.88	0.04 0.34	--	2.10	2.10
	--	7.6	154.9	168 8.038	83 6.83	80 3.48	3 0.08	80 3.48	0 1.9	327 5.06	485 10.10	0.06 0.29	--	5.3	5.3
	--	8.2	94.0	41 2.045	49 4.003	2 0.05	0 41	97 4.022	0 0.5	387 6.034	102 1.023	0.14 0.44	--	121.0	121.0
	--	8.1	71.2	82 4.009	13 1.07	58 2.52	2 0.05	0 33	0 1	317 5.020	41 1.079	0.03 0.39	--	125.3	125.3
	--	8.1	53 10-24-63	14 4.009						10 6.69	10 1.05	0.03 0.15	--	110.3	110.3

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in equivalents per million percent reaction value						Mineral constituents in parts per million				
				Calcium C _a	Magnesium M _g	Sodium N _a	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	
MIDDLE SANTA ANA RIVER HYDRO SUBUNIT YO100														
25/ 7W-36D 2 S 5- 8-64	--	7.4	74.9	84 4.0 51	57 2.48 30	0.2 0.05 1	0	322 5.28 64	4.9 1.02 12	53 1.49 18	29 0.47 6	0.04 0.02	--	4.94 4.52
25/ 8W-14b 1 S 10-23-63	--	8.2	384	49 2.045 60	11 0.90 22	16 0.70 17	2 0.05 1	173 0.33 8	20 0.42 70	10 0.28 10	13 0.21 7	0.03 0.02	--	2.31 2.16
5-12-64	--	8.1	391	51 2.054 58	13 1.07 25	16 0.70 16	2 0.05 1	192 3.15 73	23 0.48 11	20 0.32 8	12 0.32 7	0.03 0.01	--	24.7 23.2
25/ 8W-14H 1 S 10-23-63	--	7.7	309	33 1.065 49	12 0.99 29	16 0.70 21	2 0.05 1	166 2.72 82	19 0.40 12	6 0.17 5	1.9 0.03 1	0.03 0.01	--	1.74 1.32
5-12-64	--	8.0	333	43 2.015 60	10 0.82 23	14 0.61 17	0 0.03 1	173 2.04 80	19 0.40 11	6 0.17 5	9.0 0.15 4	0.05 0.03	--	1.72 1.68
25/ HW-22b 1 S 5-12-64	--	7.8	359	43 2.015 55	10 0.82 21	20 0.05 22	2 0.05 1	178 2.92 74	31 0.65 17	4 0.11 6	7.0 0.25 3	0.04 0.11	--	2.28 2.10
25/ 8W-23C 4 S 3- 9-64	--	8.1	584	73 3.064 61	16 1.32 22	23 1.00 17	2 0.05 1	233 3.82 63	4.5 0.94 15	28 0.79 13	33 0.53 9	0.01 0.09	--	3.35 3.24
9-25-64	--	8.1	710	85 4.024 58	21 1.73 23	31 1.35 18	2 0.05 1	304 4.08 67	56 1.01 16	21 0.87 12	0.01 0.03 6	0.03 0.02	--	4.24 4.03

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity value						Mineral constituents in parts per million parts per million								
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfur	Total hardness	Expt 80°C	
Date sampled				CO ₃	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	SO ₂		
MIDDLE SANTA ANA R HYDRO SUBUNIT YOLBU YOLBU																		
25/ 8W-23M 1 5 3- 9-64	--	7.8	6.52	79	3.94	1.56	1.17	0.05	2	0	248	76	31	16	0.26	0.05	--	383
					59	23	17	1		60	4.06	1.58	0.87	0.4				275
					88U	5.79	2.63	40	3	0	336	117	49	16	0.1	0.05	--	372
9-25-64	--	8.0				116	32	1.74	0.08		5.51	2.44	1.38	0.26				5.98
						57	26	17	1		57	25	14	3				4.21
25/ 8W-25L 1 5 10-23-63	--	8.1	6.22	80	1.7	31	3	0	242	83	14	33	0.3	0.04	--			53.8
						3.99	1.40	1.35	0.08		3.97	1.73	0.51	0.53				270
						59	21	20	1		59	26	8	8				4.05
						89	13	26	2		217	81	18	31	0.2	0.09	--	384
						63	17	1.13	0.05		3.56	1.69	0.51	0.50				384
						17	18	1			57	27	8	8				356
						80	16	28	2		223	89	18	36	0.4	0.03	--	381
						3.99	1.32	1.22	0.05		3.65	1.85	0.51	0.58				24.8
						61	2.0	19	1		55	28	8	9				356
						41	34	24	1		55	29	9	7				266
9-24-64	--	8.1	6.20	46	2.3	31	2	0	225	95	21	29	0.1	0.05	--			4.37
						3.00	1.89	1.35	0.05		3.69	1.96	0.59	0.47				379
						41	34	24	1		55	29	9	7				358
						59	11	23	2		198	36	24	3	0.08	0.02	--	282
						2.94	0.90	1.00	0.05		3.25	0.75	0.62	0.08				142
						60	18	20	1		66	15	17	2				263
						61	10	20	2		204	35	6	0.1	0.03	--		
						3.04	0.82	0.05	18	1	3.34	0.73	0.10	2				254
						64	17	18	1		68	15	15					193
																	260	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million equivalents per million percent reaction value							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	TDS Evap (180°C) Evap (15°C) hardness	
Date sampled				CO ₃	Mg	Na	K	HCO ₃	CO ₃	SO ₄	Cl	NU ₃	SO ₂	Compound	CO ₃		
MIDDLE SANTA ANA R HYDRO SUBUNIT YOIBU YOIBU																	
2S / 8W-25M 1 S 5-12-64	--	8.0	446	57	11	21	0	202	36	5.5	0.5	0.03	--	291	187		
				2.84	0.90	0.91	0.05	0.75	0.68	0.09	2				256		
				60	19	19	1	69	16	14							
9-24-64	--	8.1	480	49	24	25	0	225	39	6	0.1	0	--	302	221		
				2.45	1.97	1.09	0.05	3.69	0.81	0.10	2						
				44	35	20	1	67	15	16							
2S / 8W-26C 2 S 3- 9-64	--	7.8	835	109	22	36	2	0	272	142	37	21	0.1	0.04	--		
				5.44	1.81	1.57	0.05	4.46	2.96	1.04	0.34						
				61	20	18	1	51	34	12	4						
9-25-64	--	8.1	750	75	36	34	2	0	260	127	32	20	0.1	0.05	--		
				3.74	2.96	1.48	0.05	4.26	2.64	0.90	0.32						
				45	36	18	1	52	33	11	4						
2S / 8W-26K 1 S 10-23-63	--	7.9	951	98	38	56	3	0	354	181	42	9.0	0.5	0.08	--		
				4.89	3.13	2.43	0.08	5.80	3.77	1.18	0.15						
				46	30	23	1	53	35	11	1						
5-12-64	--	7.4	958	110	43	56	3	0	366	187	45	7.5	0.7	0.03	--		
				5.49	3.54	2.43	0.08	6.00	3.89	1.27	0.12						
				48	31	21	1	53	34	11	1						
3S / 7W-3A 1 S 10-24-63	--	8.1	810	103	28	35	2	0	347	90	39	19	0.4	0.02	--		
				5.14	2.30	1.52	0.05	5.69	1.87	1.10	0.31						
				57	26	17	1	63	21	12	3						
6-17-64	--	8.4	800	53	59	37	2	5	330	96	44	18	0.2	0.11	--		
				2.64	4.85	1.61	0.05	0.17	5.41	2.00	1.24	0.29					
				29	53	18	1	2	59	22	14	3					

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million reaction value				Mineral constituents in parts per million						
				calcium	magnesium	sodium	potassium	carbonate	bicarbonate	sulfate	chloride	nitrate	fluoride	boron	silica	TDS	Total hardness	
Date sampled				C _o	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	S.O ₂	Evap 105°C Compound	Evap 105°C O ₂	Evap 105°C O ₂
MIDDLE SANTA ANA R HYDRO SUBUNIT YOLBU CHINO HYDRO SUHARE																		
3S/ 7W- 3N 1 S	--	7•6	706	82	24	38	2	0	317	64	39	18•5	0•4	0•01	--	459	303	
5- 8-64				4•09	1•97	1•65	0•05	5•20	1•33	1•10	0•30					424		
				53	25	21	1	66	17	14	4					348	200	
--	8•2	540	47	23	35	2	0	196	43	41	15	0•1	0•11	--				
				2•10	1•89	1•52	0•05	3•21	0•90	1•16	0•24							
				38	34	27	1	58	16	21	4							
6-17-64																		
3S/ 7W- 3R 1 S	--	7•8	642	81	17	34	2	0	312	35	31	14	0•4	0	--	404	272	
10-24-63				4•04	1•40	1•48	0•05	5•11	0•73	0•87	0•23							
				58	20	21	1	74	11	13	3							
3S/ 7W- 4A 1 S	--	8•0	672	87	15	38	2	0	286	65	40	19•0	0•4	0•01	--	434	279	
5- 8-64				4•34	1•23	1•65	0•05	4•69	1•35	1•13	0•31					407		
				60	17	23	1	63	18	15	4							
3S/ 7W- 4D 1 S	--	7•5	523	54	11	48	2	0	233	39	27	21	0•5	0•09	--			
5- 8-64				2•69	0•90	2•09	0•05	3•82	0•81	0•76	0•34					347		
				47	16	36	1	67	14	13	6					317		
3S/ 7W- 4H 1 S	--	8•1	966	111	30	64	3	0	430	74	65	22	0•4	0•05	--	609	401	
10-24-63				5•54	2•47	2•78	0•08	7•05	1•54	1•83	0•35					581		
				51	23	26	1	65	14	17	3							
5- 8-64	--	7•4	917	128	9	57	3	0	402	78	64	25•5	0•4	0•02	--	609	357	
				6•39	0•74	2•48	0•08	6•59	1•62	1•80	0•41					563		
				66	8	26	1	63	16	17	4					363	231	
																331		
3S/ 7W-10C 1 S	--	8•0	575	68	15	36	2	0	276	32	28	14	0•4	0•02	--			
10-24-63				3•39	1•23	1•57	0•05	4•52	0•67	0•79	0•23							
				54	20	25	1	73	11	13	4							

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity						Mineral constituents in parts per million								
				Ca	Mg	K	Na	Sodium	potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Baron	Sulfate		
Date sampled																Total hardness as CaCO ₃		
35/ 7W-10C 1 S 5- 8-64	--	7.7	549	63	3.14	1.40	1.40	33	2	0	260	33	30	14	0.04	--	362	
				52	23	24	24	0.05	1.03	4.26	0.69	0.85	0.23	4			320	
6-17-64	--	7.7	530	31	1.55	2.22	1.61	37	2	0	226	32	27	7	2.0	0.11	--	316
				29	41	30	30	0.05	1.03	3.70	0.67	0.76	0.11	2			189	
35/ 7W-11L 3 S 5-28-64	70	7.9	A60	30	6.7	6.1	6.1	0	3	0	272	112	107	2.1	0.2	0.31	26	276
				15.0	5.51	2.65	0.65	4.46	2.33	4.46	2.33	3.02	0.03	31			600	
35/ 7W-11L 4 S 5-29-64	74	8.0	80U	36	26	117	1	0	0	251	41	131	2.5	2.6	1.80	21	351	
				1.80	2.14	5.09	0.03	4.11	0.85	4.11	0.85	3.69	0.04	42			542	
35/ 7W-11M 4 S 5-21-64	69	7.7	1111	97	33	88	4	0	0	251	118	177	3	0.7	0.56	30	492	
				4.84	2.71	3.83	0.10	4.11	2.46	4.11	2.46	4.99	0.05	43			197	
1N/ 6W-25K 1 S 3-31-64	--	7.8	341	52	9	9	2	0	184	27	6	2.0	0.6	0.04	--		503	
				2.59	0.74	0.74	0.39	0.05	3.02	0.05	0.17	0.17	0.1				378	
CLAREMONT HIGHLIGHTS HYDRO SURFACE				69	20	10	1			80	15						675	
1N/ 8W-24L 1 S 3-31-64	--	7.5	469	71	12	10	2	0	248	46	7	9	0.6	0.06	--	219		
				3.54	0.99	0.43	0.05	4.06	0.96	4.06	0.96	0.20	0.15	3			198	
				71	20	9	1			18	18						167	
																	287	
																	227	
																	280	

TABLE E-
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value				Mineral constituents in parts per million				Y0100 SANTA ANA RIVER HYDRO UNIT		
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate		
Date sampled				Na	K	CO ₃	HCO ₃	SO ₄	Cl	F	B			
MIDDLE SANTA ANA R HYDRO SUBUNIT Y0100														
1N/ 8W-34L 1 S 6-22-64	65	8.1	530	1.95	2.22	0.05	0	166	46	23	60	0.4	0.17	--
CUCAMONGA HYDRO SUBAREA			Y01B4	36	41	1.22	1	2.72	0.96	0.65	0.97	0.18		338
1S/ 7W-4R 1 S 4-10-64	--	8.0	323	4.3	8	18	2	0	184	13	8	3.7	0.3	307
				2.15	0.66	0.78	0.05	3.02	0.27	0.23	0.06	0.2	0.01	141
1N/ 7W-27D 1 S 4-10-64	--	8.0	325	4.2	8	19	2	0	187	14	9	4.0	0.2	--
				2.10	0.66	0.83	0.05	3.06	0.29	0.25	0.06	0.2	0.01	220
1N/ 7W-33A 1 S 3-31-64	--	7.6	399	4.4	12	20	2	0	132	35	10	55	0.4	186
				2.20	0.99	0.87	0.05	2.16	0.73	0.28	0.89	7	0.01	138
TEMESCAL HYDRO SUBAREA			Y01B5	5.4	24	21	1	53	18	7	22			190
3S/ 6W-18N 1 S 5-21-64	--	7.5	1900	1.79	5.2	180	6	0	4.75	1.97	298	40	0.6	35
				8.93	4.28	7.83	0.15	7.79	4.10	8.40	0.65	3	0.42	1300
3S/ 6W-18D 2 S 5-21-64	72	7.4	1397	114	4.4	126	2	0	310	76	258	50	0.6	1222
				5.69	3.62	5.48	0.05	5.08	1.58	7.28	0.81	5	0.28	40
				38	37	24	37	34	11	4.9				890
														466
														863

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1962/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent reactivity				Mineral constituents in parts per million			
				Calcium C _o	Magnesium M _g	Sodium N _a	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Sulfur S _o
MIDDLE SANTA ANA R HYDRO SUBUNIT YO100 TEMESCAL HYDRO SUBAREA															
35/ 6W-28G 1 S 10-15-63	--	7.7	1305	115 5.74 4.4	1.81 0.22 4.0	22 0.15 1	0	360 5.90 4.6	128 2.66 2.1	121 3.41 26	56 0.90 7	0.4 0.30	--	931	378
35/ 6W-28H 1 S 5-28-64	70	8.0	1100	34 1.70 14	67 4.70 39	108 0.10 1	0	359 5.88 5.0	120 2.50 21	101 2.85 24	35 0.56 5	0.2 0.29	35	760	361
9-15-64	--	7.6	966	84 4.19 4.1	80 2.47 24	4 0.10 34	0	282 4.62	101 2.10 21	83 2.34 23	56 0.90 9	0.3 0.21	--	614	681
35/ 6W-28L 1 S 3- 9-64	--	7.6	1383	123 6.14 4.2	38 3.13 21	124 0.10 37	4	390 6.39 1	136 2.83 45	123 3.47 20	102 1.65 24	0.4 1.2 12	--	577	333
35/ 6W-28M99 5 3- 9-64	--	7.5	1383	130 6.49 4.4	35 2.88 19	123 0.10 36	4	403 6.61 1	137 2.85 45	100 3.55 19	0.4 1.61 11	--	951	464	
9-24-64	--	7.9	1400	95 4.74 3.0	54 4.44 28	155 0.13 42	5	423 6.93	155 3.23	150 4.23	85 1.37	0.2 0.27	--	842	459
35/ 6W-290 4 S 5-22-64	72	7.3	1883	177 8.83 4.1	43 3.54 17	205 8.91 42	5	483 7.92 37	192 6.00 19	284 8.01 38	78 1.26 6	0.8 0.38	29	1310	619
35/ 6W-30F 4 S 10-24-63	--	7.1	1792	161 8.03 4.0	48 3.95 20	186 8.09 4.0	4	--	211 6.80 33	280 7.90 22	75.8 1.22 39	0.30	--	1300	599
															1170

TABLE E-I
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per percent reacionce				Mineral constituents in parts per million				Mineral constituents in parts per million			
				Calcium C _a	Magnesium M _g	Sodium N _a	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Barium B	Silicate SiO ₂
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01R5															
35/ 6W-3N-F 4 S	--	7.0	1368	111	33	138	4	--	333	146	196	30.4	--	0.09	--
	4-24-64			5.54	2.71	6.00	0.10	4.2	5.46	3.04	5.53	0.49		923	413
	69	7.1	1368	106	35	135	4	0	322	138	197	39	0.7	0.28	822
	5-71-64			5.29	2.88	5.87	0.10	4.2	5.28	2.87	5.56	0.63		37	409
				37	20	5.87	0.10	4.2	3.7	2.0	3.9	0.4			
35/ 6W-3N 1 S	--	8.0	1200	109	52	93	3	0	342	180	130	4.9	0.4	0.20	850
	5-28-64			5.44	4.28	4.04	0.08	4.04	5.61	3.75	3.67	0.79			
				39	31	29	1	4.1	4.1	2.7	2.7	6			
35/ 6W-3N 1 S	--	7.6	1300	161	19	140	4	0	423	157	156	5.8	0.4	0.35	807
	5-28-64			8.03	1.56	6.09	0.10	3.9	6.93	3.27	4.40	0.94			
				51	10	39	1	4.5	4.5	2.1	2.8	6			
35/ 6W-3N 1 S	--	7.7	1000	90	33	81	3	0	250	119	122	5.3	0.2	0.17	807
	5-28-64			4.49	2.71	3.52	0.08	2.5	4.10	2.48	3.44	0.85			
				42	25	33	1	3.3	3.8	2.3	3.2	8			
35/ 6W-32A 1 S	--	7.6	1500	46	114	125	5	0	413	163	212	5.7	0.2	0.26	888
	5-28-64			2.30	9.38	5.44	0.13	5.38	6.77	3.39	5.98	0.92			
				13	54	32	1	4.0	4.0	2.0	3.5	5			
35/ 7W-11P 2 S	--	8.0	860	23	8	170	1	0	197	39	168	4.9	3.0	4.50	446
	5-29-64			1.15	0.66	7.39	0.03	1.2	3.23	0.81	4.74	0.08			
				12	7	80	0	3.6	3.6	9	53	1			
35/ 7W-13G 2 S	--	7.2	1029	70	45	74	4	0	176	52	216	8.0	0.5	0.10	539
	5-21-64			3.49	3.70	3.22	0.10	3.1	2.88	1.08	6.09	0.13			
				33	35	31	1	2.8	2.8	1.1	6.0	1			

TABLE E-I
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million equivalent reaction value						Mineral constituents in parts per million parts per million							
				Calcium C o	Magnesium M g	Sodium N a	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Sulfur S	TDS Evap 10% Residue	
MIDDLE SANTA ANA R. HYDRO SUBUNIT YO1B5																	
35/ 7W-14D 1 S 5-29-64	--	8.5	1034	4.3	0.66	7.74	0.08	24	246	6.1	154	7.0	1.8	2.70	29	635	141
35/ 7W-14J 2 S 5-28-64	69	7.3	1020	2.22	71	80	3	0	361	57	107	14	0.6	0.17	28	632	347
35/ 7W-21N 1 S 3- 6-64	--	8.4	1081	1.22	4.6	50	2	16	251	255	54	34	0.6	0.18	--	560	560
5-22-64	--	7.9	954	95	4.6	51	2	0	234	259	48	30	0.4	0.12	29	757	494
9-25-64	--	7.8	1020	90	64	53	2	0	303	255	53	29	0.2	0.11	--	703	426
35/ 7W-72A 1 S 5-21-64	--	6.9	2016	1.90	52	200	1.0	0	4.68	255	16	0.5	0.96	3.2	715	676	
35/ 7W-22A 4 S 10-25-63	--	6.7	2335	2.40	52	234	1.7	--	557	331	353	23.7	--	0.40	--	1360	689
4-26-64	--	7.1	1629	1.44	4.28	8.70	0.26	7.67	5.31	8.91	4.0	1	0.26	0.11	--	1303	814
				4.42	19	38	1	35	24	40						1766	1515
				11.98	4.28	10.17	1.18	1.18	9.13	6.89	9.95	0.38				1081	495
				4.45	16	38	1	35	26	38	1					1031	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million							
				Calcium C _a	Magnesium M _g	Sodium N _a	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fuoride F	Boron B	Silicate SiO ₂	TDS Total Evap 180°C	
MIDDLE SANTA ANA R HYDRO SUBAREA Y0185																	
3S / 7W-22A 4 S 5-21-64	70	7.4	1686	160 7.98	31 2.55	172 7.48	16 0.41	0 2	390 6.39	234 4.87	245 6.91	16 0.26	1.06 0.37	28 1	1100 1095	527 1095	
3S / 7W-22G 2 S 3- 9-64	--	7.3	1664	160 7.98	43 3.54	136 5.91	4 0.10	0 1	420 6.88	179 3.73	216 6.09	43 0.69	0.36 0.36	--	1075 1075	576 576	
5-29-64	68	7.7	1500	81 4.04	85 6.99	160 6.96	4 0.10	0 1	434 7.11	187 3.89	225 6.35	30 0.48	0.55 0.55	22	1092 1092	552 552	
9-24-64	--	8.2	1460	102 5.09	56 4.61	155 6.74	4 0.10	0 1	374 6.13	180 3.75	209 5.89	34 0.55	0.2 0.55	--	1008 1008	485 485	
3S / 7W-22H 1 S 10-24-63	--	6.9	2332	246 12.28	60 4.93	221 9.61	10 0.26	-- 1	620 10.16	283 5.89	367 10.35	18.9 0.30	0.27 0.30	--	1667 1667	861 861	
4-24-64	--	7.1	2342	245 12.23	55 4.52	215 9.35	9 0.23	-- 1	640 10.49	284 5.91	359 10.12	13.6 0.22	0.71 0.22	--	1511 1511	838 838	
5-21-64	70	7.1	2300	237 11.83	63 5.18	215 9.35	10 0.26	0 1	622 10.19	292 6.08	356 10.10	15 0.24	0.96 0.96	32	1630 1630	851 851	
3S / 7W-22J 4 S 10-24-63	--	7.3	1956	160 7.98	42 3.45	114 4.96	3 0.08	-- 1	400 3.05	190 3.96	179 5.05	49.0 0.79	-- 5	--	1529 1529	572 572	
MIDDLE SANTA ANA R HYDRO UNIT Y0100																	
SANTA ANA RIVER HYDRO UNIT Y0100																	
SANTA ANA RIVER HYDRO UNIT Y0100																	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				Mineral constituents in				Mineral constituents per million parts							
				Copper	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Mineral constituents per million parts	SiO ₂	Al ₂ O ₃	Total hardness	CaCO ₃
Date sampled				mg	mg	mg	mg	CO ₃	HCO ₃	SO ₄	Cl	Na ₃	Ca	F	B	SiO ₂	Al ₂ O ₃	CaCO ₃	
MIDDLE SANTA ANA R HYDRO SUITE UNIT Y01B5																			
TFMFSCL HYDRO SUBUNIT Y01B5																			
35 / 7W-22J 4 S 4-74-64	--	7.4	1550	162	43	119	4	--	417	183	203	35.2	--	0.23	--	1120	581		
				8.08	3.54	5.17	0.10		6.83	3.81	5.72	0.57							
				4.8	21	31	1		4.0	23	34								
9-74-64	--	7.9	1420	127	55	118	4	0	423	158	193	1.3	0.1	0.23	--				
				6.34	4.52	5.13	0.10		6.93	3.29	5.64	0.21							
				39	28	32	1		4.4	21	34								
35 / 7W-72L 1 S 3- 9-64	--	7.7	955	95	24	63	2	0	232	117	95	51	0.4	0.13	--				
				4.74	1.97	2.74	0.05		3.80	2.44	2.68	0.82							
				50	21	29	1		3.9	25	28								
9-74-64	--	7.9	940	76	36	71	3	0	228	132	96	43	0.4	0.07	--				
				3.79	2.96	3.09	0.08		3.74	2.75	2.71	0.69							
				38	30	31	1		38	28	27								
35 / 7W-23D 1 S 10-74-63	--	6.8	2461	261	63	246	13	--	601	334	435	20.6	--	0.44	--				
				13.02	5.18	10.70	0.33		9.85	6.95	12.27	0.33							
				45	18	37	1		34	24	42								
4-74-64	--	7.0	1864	179	45	202	14	--	461	256	302	16.2	--	0.73	--				
				8.93	3.70	8.78	0.36		7.56	5.33	8.52	0.26							
				41	17	40	2		35	25	39								
5-71-64	70	6.9	1980	185	49	200	14	0	461	255	326	27	--	0.96	30				
				9.23	4.03	8.70	0.36		7.56	5.31	9.19	0.44							
				41	18	39	2		34	24	41								
35 / 7W-23D 2 S 10-74-63	--	6.7	2007	225	50	197	19	--	524	319	321	30.5	--	0.54	--				
				11.02	4.11	8.57	0.49		8.59	6.64	9.05	0.49							
				46	17	35	2		35	27	37								

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents				parts per million equivalents per percent reactivity				Mineral constituents in parts per million					
				Calcium C _o	Magnesium M _g	Sodium N _a	Potassium K	Carbonate C _O ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron SiO ₂	TDS	Evap 180°C	Total hardness °C
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B5																	
3S/ 7W-23D 2 S	--	7.3	1878	165	34	178	17	--	44.5	24.6	250	13.6	--	0.68	--	1172	552
4-74-64	5-71-64	6.6	7.5	1751	8.23	2.80	0.43	7.74	7.29	5.12	7.05	0.22	0.1	1.08	27	1123	522
3S/ 7W-23J 4 S	--	7.0	1893	178	4.3	194	8	--	40.3	24.9	260	2	0.5	1.08	27	1160	522
10-74-63	4-74-64	8.88	3.54	178	4.2	17	0.46	8.04	6.61	5.18	7.33	0.03	27	38	1124	621	621
4-74-64	--	7.1	1850	170	4.4	185	6	--	48.5	21.1	291	17.6	--	0.50	--	1300	605
5-71-64	70	6.9	1859	166	4.4	180	10	0	45.6	18.6	299	22.4	--	0.32	--	1169	605
3S/ 7W-23K 1 S	--	7.0	1704	159	39	175	5	--	45.2	19.2	233	33.9	--	0.40	--	1150	595
10-74-63	4-24-64	8.28	3.62	159	3.21	7.61	0.13	7.61	7.41	4.00	6.57	0.55	3	3	33	1290	595
5-71-64	--	7.3	1652	147	37	155	5	--	45.2	16.6	212	38.7	--	--	--	1170	557
4-24-64	--	7.9	1553	138	39	154	5	0	43.9	16.3	210	39	0.5	0.66	32	1050	505
5-71-64	--	6.89	3.21	138	6.70	0.13	0.13	7.20	3.39	5.92	0.63	0.4	35	42	997	997	997

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents				parts per million equivalents per percent reionance value				Mineral constituents in parts per million			
				Calcium C	Magnesium Mg	Sodium Na	K	Carbon CO ₃	Bicarbonat HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂
MIDDLE SANTA ANA R HYDRO SUBUNIT YOIBS															
35/ 7W-22M 1 S 5-72-64	69	7.1	1590	138 6.89 40	4.3 3.54 21	154 6.70 39	0.13 1	0 7.11 41	4.34 3.62 21	21.8 6.15 36	0.4 0.39 2	0.96 0.39 2	31	1025	522
35/ 7W-24C 5 S 5-29-64	--	7.6	835	57 2.84 32	24 1.97 22	93 4.04 45	0 0.10 1	0 2.72 31	166 0.81 9	39 1.76 56	0.9 0.35 4	0.25 4.96 0.35	4.6	615	241
35/ 7W-24D 2 S 5-29-64	--	7.5	1250	100 4.99 39	38 3.13 24	108 4.70 36	5 0.13	0 4.08	249 1.39	67 6.82 37	26 0.9 0.42	0.22 0.9 3	37	815	544
35/ 7W-24F 1 S 5-29-64	--	7.4	1230	107 5.34 43	29 2.38 19	108 4.70 38	4 0.10	0 4.16	254 1.69	81 6.43 33	228 0.26 13	0.7 0.26 51	32	790	406
9-16-64	--	7.5	1246	100 4.99 41	31 2.55 37	105 4.57 1	4 0.10	0 3.92	239 1.50 32	72 1.50 12	225 0.32 53	0.3 0.36 3	--	751	377
35/ 7W-24Q 2 S 5-29-64	--	7.4	1832	149 7.64 37	51 4.19 21	187 8.13 41	7 0.18	0 6.20	378 4.25	204 8.63	306 0.45	0.5 0.82	32	675	675
35/ 7W-24Q 3 S 5-28-64	69	8.0	1900	40 2.00 9	135 11.10 51	197 8.57 39	6 0.15	0 7.93 1	484 4.277 37	205 9.08 20	322 0.24 42	0.2 0.48 1	32	1200	582
35/ 7W-24Q 4 S 5-28-64	69	7.7	1900	37 1.85 9	128 10.53 51	190 8.26 40	5 0.13	0 7.57 1	462 4.12 37	198 8.46 20	35 0.56 41	0.2 0.40 3	29	1350	656
															1188
															1151
															1150

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reacitance				Mineral constituents in parts per million							
				Calcium C _a	Magnesium M _{Mg}	Sodium N _K	Potassium N _{Na}	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silicate SiO ₂
MIDDLE SANTA ANA R HYDRO SUBUNIT YO1R5 THAMESCAL HYDRO SUBAREA															
35/ 7W-25A 3 S 10-24-63	--	6.8	2196	218 10.88 4.2	221 9.61 37	6 0.15 1	--	579 9.49 37	264 5.50 22	340 9.59 38	53.2 0.86 3	--	0.24	--	1626
4-24-64	--	6.9	1791	154 7.68 39	179 4.03 21	6 0.15 1	--	467 7.65 39	206 4.29 22	250 7.05 36	40.5 0.65 3	--	--	--	1449
5-21-64	7.0	7.4	1712	149 7.44 4.0	170 7.39 20	6 0.15 1	0	437 7.16 40	191 7.16 38	244 6.88 21	50 0.5 37	0.70	35	1180	586
35/ 7W-25J 1 S 5-22-64	6.9	7.8	1287	134 6.69 4.6	108 4.70 20	4 0.10 33	0	381 1.56 0.10	156 1.33 0.10	133 3.25 23	53 0.85 27	0.6 0.85 6	0.22	32	1114
35/ 7W-25M 1 S 9-16-64	--	8.0	1048	102 5.09 4.7	28 2.30 21	3 0.08 1	0	230 3.77 31	113 2.35 36	120 3.38 22	64 1.03 32	0.6 1.03 10	0.10	32	1092
35/ 7W-25M 2 S 5-22-64	7.4	7.4	1066	111 5.54 4.8	29 3.57 21	3 0.08 1	0	271 4.44 31	122 2.54 39	117 3.30 29	70 1.13 10	0.6 1.13 10	0.14	30	652
35/ 7W-26G 1 S 5-29-64	--	7.8	960	73 3.64 34	45 3.70 34	3 0.08 1	0	255 4.18 31	103 2.14 39	114 3.21 20	66 1.06 30	0.6 1.06 10	0.17	22	666
35/ 7W-26K 1 S 5-28-64	7.4	8.0	900	82 4.09 4.0	39 2.96 29	2 0.05 1	0	218 3.57 35	122 2.54 35	114 3.21 25	53 0.85 25	0.2 0.85 8	0.08	20	629
															629
															676
															607

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per milliliter reactivity						Mineral constituents in parts per million								
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfur	TDS	Total hardness as CaCO ₃	
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B5 TEMESCAL HYDRO SUBAREA																		
3S/ 7W-27G 1 S	--	7.5	1096	14.1 7.04	3.6 2.96	2.30 0.05	0 37	276	161 4.52	101 2.85	92 1.48	0.5 1.12	0.06 0.17	780 21	500 750			
3S/ 7W-27G 2 S	--	8.0	940	9.0 4.49	4.6 3.78	2.78 0.05	0 34	231 3.79	18.9 3.93	85 2.40	57 0.92	0.2 8	0.17 21	720 668	414 668			
3S/ 7W-27H 1 S	--	7.7	1100	13.4 6.69	4.0 3.29	2.43 0.05	0 26	285 4.67	165 3.44	104 2.93	78 1.26	0.1 1.0	0.12 24	20 10	798 739	499 735		
9-16-64	--	7.8	1153	1.38 6.89	4.0 3.29	2.26 0.08	0 18	287 4.70	15.8 3.29	103 2.90	100 1.61	0.1 1.13	0.08 13	-- 10	-- 10	764 735	509 509	
3S/ 7W-27H 2 S	--	7.8	631	4.3 2.15	24 1.97	3 2.09	0 0.08	0 1	73 2.0	11.3 2.35	89 2.51	0.3 0.06	0.10 1	5 1	380 365	206 365		
3S/ 7W-28H 1 S	--	7.6	980	11.3 5.64	3.7 3.04	4.4 1.91	2 0.05	259 4.02	19.3 1.80	64 0.50	31 5	0.3 0.50	0.11 5	-- 5	694 612	434 612		
5-29-64	--	7.7	860	6.7 3.34	6.4 5.26	4.7 2.04	1 0.03	264 4.03	18.8 3.91	66 1.86	31 0.50	0.2 5	0.10 5	21 5	678 615	430 615		
9-25-64	--	8.0	960	11.5 5.74	3.6 2.96	4.7 2.04	2 0.05	258 4.02	19.7 4.10	67 1.89	30 0.48	0.2 4	0.09 4	-- 4	702 621	435 621		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million						
			Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Silica	Boron	TDS	
Date sampled	pH		Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	F	SiO ₂	B	total	
MIDDLE SANTA ANA R HYDRO SUBAREA Y01B5															
3S/ 7W-35L 1 S 9-15-64	--	8.1	999	113 5.64	29 2.38	52 0.05	0	247 4.05	139 2.89	81 1.11	0.4	0.04	3.0	687	401
4S/ 6W- 8H 1 S 9-18-64	--	7.0	1204	134 6.69	22 1.81	90 3.91	2	0	273 4.47	179 3.73	80 3.02	0.1	0.11	--	637
4S/ 6W- 9C 1 S 9-18-64	--	8.1	1400	102 5.09	84 6.91	85 3.70	2	0	316 5.18	159 3.11	27 0.1	0.12	--	790	425
4S/ 7W- 3F 1 S 9-16-64	--	7.8	1247	131 6.54	68 5.59	52 2.26	1	0	301 4.93	324 6.75	59 1.66	0.14	0.14	748	600
ARLINGTON HYDRO SUBAREA Y01B6															
3S/ 5W- 8R 1 S 9-15-64	70	8.0	1530	139 6.94	43 3.54	141 6.13	4	0	397 6.51	167 3.48	151 4.26	0.6	0.23	--	524
3S/ 5W-15A 1 S 9-15-64	--	7.5	1672	146 7.29	74 6.09	105 4.57	6	0	382 6.26	165 3.44	204 5.75	0.5	0.28	55	985
3S/ 5W-17K 1 S 9-15-64	72	7.9	1158	80 3.99	37 3.04	116 5.04	4	0	321 5.26	115 2.39	89 2.51	0.5	0.20	40	1110
															670
															1095
															763
															352
															754

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million							
				Calcium C.O.	Magnesium M.g.	Sodium N.a.	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Sulfur S.O ₂	TDS Evap 180°C Total hardness as CaCO ₃	
MIDDLE SANTA ANA R HYDRO SUBUNIT Y0186																	
35/ 6W-15R 1 S 9-15-64	70	7.9	1317	114 5.69	35 2.88	125 0.10	4 0.44	0 39	0 1	362 5.93	130 2.71	133 1.71	0.6 1.2	0.23 0.8	--	894 826	429 368
35/ 6W-22L 1 S 9-15-64	84	8.0	1293	83 4.14	39 3.21	141 6.13	5 0.13	0 45	0 1	293 4.80	147 3.06	145 4.09	91 1.47	0.27 0.11	--	876 796	826 796
35/ 6W-24P 1 S 9-15-64	--	8.0	1309	110 5.49	49 4.03	111 4.83	3 0.08	0 33	0 1	340 5.57	170 3.54	99 2.79	142 2.29	0.25 0.16	--	975 852	476 852
RIVERSIDE HYDRO SUBAREA Y01B7																	
15/ 4W-19E 1 S 3-17-64	--	7.8	287	--	--	--	0	99 1.62	34 0.71	10 0.28	--	--	--	--	--	6.3	
6- 8-64	--	7.9	252	24 1.20	6 0.49	21 0.91	4 0.10	0 34	0 4	137 2.25	9 0.19	9 0.25	0 7	0.02 0.25	4 --	140 145	85 145
15/ 4W-19K 1 S 3-16-64	--	7.8	455	--	--	--	0	163 2.67	46 0.96	9 0.25	--	--	--	--	--	177	
6- 8-64	--	7.6	344	46 2.30	4 0.33	18 0.78	4 0.10	0 22	114 1.87	54 1.12	11 0.31	16 0.26	0.04 0.9	0.02 7	9 203	132 218	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalent percent reaction value				Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fu.ride	Boron	Sulfate	Total hardness as CaCO ₃
Date sampled				mg	mg	mg	mg	HCO ₃	CO ₃	SO ₄	Cl	NO ₃	F	B	S-02	
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B7																
RIVERSIDE HYDRO SUBAREA Y01B7																
1S/ 4W-28L 2 S	68	8.0	6.00	5.3	1.2	6.2	0	229	4.9	4.2	18	0.9	0.12	20	360	182
6-25-64	--	7.6	7.07	2.64	0.99	2.70	0.08	3.75	1.02	1.18	0.29	5	--	--	373	
9-30-64	--	--	--	4.1	1.5	4.2	1	60	16	19	--	--	--	--	--	
1S/ 4W-28N 5 S	67	8.1	7.00	4.7	3.2	5.0	0	223	80	56	25	0.7	0.19	16	430	249
6-25-64	--	--	--	2.35	2.63	2.17	0.10	3.65	1.67	1.58	0.40	5	--	--	--	
1S/ 4W-29H 1 S	--	7.4	7.42	6.1	1.4	7.4	4	0	238	70	62	21	0.8	0.26	--	444
3-11-64	--	--	--	3.04	1.15	3.22	0.10	3.90	1.46	1.75	0.34	5	--	--	--	
1S/ 4W-29K 9 S	--	7.0	8.06	7.2	1.8	7.4	6	0	156	140	97	1.0	0.3	0.46	8	520
7-27-64	--	--	--	3.59	1.48	3.22	0.15	2.56	2.91	2.74	0.02	3	--	--	493	
1S/ 4W-30D 6 S	--	7.6	5.01	6.6	1.1	1.8	3	0	196	46	13	41	0.3	0	--	321
3-11-64	--	--	--	3.29	0.90	0.78	0.08	3.21	0.96	0.37	0.66	7	--	--	--	
1S/ 4W-30K 1 S	--	7.3	12.36	1.73	3.1	5.9	5	0	400	165	113	50	0.3	0.18	27	850
7-7-64	--	--	--	8.63	2.55	2.57	0.13	6.56	3.44	3.19	0.81	6	--	--	820	
1S/ 4W-30L 4 S	--	7.7	13.06	1.76	2.7	6.5	5	0	429	107	88	0.1	1.00	--	839	
3-10-64	--	--	--	8.78	2.22	2.83	0.13	7.03	2.23	3.02	1.42	10	--	--	787	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million							
				Calcium C _a	Magnesium Mg	Sodium Na	Potassium K	Carbon dioxide CO ₂	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Barium Ba	Silica SiO ₂	Total Evap 80°C Evap 05°C Computed CaCO ₃	
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B7																	
1S/ 4W-31A 2 S 11-20-63	69	7.1	9.86	4.059	1.2	4.02	0.13	0	2.76	81	93	6.6	0.5	0.50	--	612	291
				4.46	12	4.1	1	4.52	1.69	2.62	11	1.06				583	
								4.46	1.17	2.6							
3-10-64	--	7.1	9.20	3.094	1.23	4.00	0.13	0	2.60	80	90	5.8	0.4	0.92	--	565	259
				4.42	13	4.3	1	4.26	1.67	2.54	10	0.94					
								4.5	1.18	2.7							
6-25-64	--	7.5	8.40	3.079	0.99	4.17	0.13	0	2.59	79	82	3.2	0.5	0.46	36	550	239
				4.42	11	4.6	1	4.25	1.64	2.31	1	0.52					
								4.9	1.19	2.6							
9-30-64	--	7.8	10.74	--	--	--	--	--	--	79	4.9	--	--	--	--		
										2.23	0.79						
SANTA ANA RIVER HYDRO UNIT Y0100																	
1S/ 4W-31D 1 S 11-22-63	--	7.0	8.08	2.045	1.40	4.00	0.05	0	2.10	81	86	3.1	1.0	0.51	--	536	193
				3.31	18	51	1	3.44	1.69	2.43	30	0.50					
								4.3	1.21			6					
6-25-64	--	7.0	7.98	3.009	1.23	4.04	0.20	0	2.64	68	78	1.4	1.02	0.52	31	525	216
				3.36	14	4.7	2	4.33	1.42	2.20	3						
								5.3	1.17	2.7							
9-30-64	--	7.4	9.58	--	--	--	--	--	--	84	11	--	--	--	--		
										2.37	0.18						
1S/ 4W-32E11 S 7- 3-64	--	7.8	7.34	4.039	1.32	2.17	0.10	0	2.78	69	22	0.6	0.24	24	4.80	286	
				5.55	17	2.7	1	4.56	1.44	1.66	5						
								5.7	1.18	2.1							

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reionance value						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Chloride	Sulfate	Bicarbonate	Carbon dioxide	Nitrate	Fluoride	Boron	Silica	Total Evap 180°C	Total Evap 105°C
Date sampled																	
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B7																	
1S/ 4N-32E12 S	--	7.3	829	--	--	--	--	--	195	--	--	--	--	--	--	--	--
1- 7-64	--	7.3	826	--	--	--	--	3.20	--	2.24	--	2.26	80	--	--	--	--
1- 7-64	--	7.4	824	60	14	90	5	0	2.24	80	86	3.5	0.7	0.52	--	517	207
1- 7-64	--	7.4	824	2.99	1.15	3.91	0.13	0.12	3.67	1.67	2.43	0.56	--	--	--	--	481
1- 7-64	--	7.3	833	2.37	14	48	2	--	4.4	20	29	7	--	--	--	--	--
1- 7-64	--	7.3	824	--	--	--	--	--	2.22	--	89	--	--	--	--	--	--
1- 7-64	--	7.5	824	--	--	--	--	3.64	--	2.51	--	--	--	--	--	--	--
1- 7-64	--	7.3	828	--	--	--	--	--	2.12	--	88	--	--	--	--	--	--
2-25-64	--	7.3	825	--	--	--	--	--	3.47	--	2.48	--	--	--	--	--	--
2-25-64	--	7.2	822	62	11	93	6	0	2.20	--	84	--	--	--	--	--	--
2-25-64	--	7.2	822	3.9	0.90	4.04	0.15	0.2	3.61	1.60	2.37	0.53	0.9	0.52	--	530	200
2-25-64	--	7.2	822	3.8	11	4.9	11	--	4.4	20	30	7	--	--	--	473	--

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				ports per million equivalents per million percent reactivity value				Mineral constituents in ports per million			
				Calcium C.O.	Magnesium M.Q.	Sodium N.O.	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silicate SiO ₂
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B7															
15/ 4W-32E12 S	--	7.2	831	--	--	--	--	--	--	24	--	84	--	--	--
2-25-64	--	7.3	824	--	--	--	--	0.39	2.37	--	84	--	--	--	--
2-25-64	--	7.3	810	65	16	90	5	0	245	81	89	18	0.8	0.46	32
5- 7-64	--	7.3	810	3.24	1.32	3.91	0.13	4.02	1.69	2.51	2.9	3	0.29	0.29	545
5- 7-64	7.0	7.3	799	63	13	92	6	0	240	81	87	18	0.8	0.48	33
5- 7-64	7.0	7.3	801	3.14	1.07	4.00	0.15	3.93	1.69	2.45	2.9	3	0.29	0.29	518
5- 7-64	7.0	7.3	801	60	14	92	6	0	240	81	87	18	0.9	0.48	33
5- 7-64	6.9	7.2	801	2.99	1.15	4.00	0.15	3.93	1.69	2.45	2.9	3	0.29	0.29	540
5- 7-64	6.9	7.2	801	60	14	94	6	0	240	81	87	16	0.8	0.50	32
5- 7-64	6.5	7.3	799	2.99	1.15	4.00	0.15	3.93	1.69	2.45	2.9	3	0.26	0.26	512
5- 7-64	6.9	7.5	801	3.29	0.90	4.00	0.13	3.93	1.69	2.48	3.0	3	0.26	0.26	535
6-26-64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reduction value				Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	TDS
Date sampled	Sampled in F															hardness
MIDDLE SANTA ANA R HYDRO SUBUNIT YOIRU RIVERSIDE HYDRO SUBAREA																
1S/ 4W-32E12 S	6.9	7.3	892	7.3	14	9.3	5	0	294	7.2	8.6	7	0.8	0.59	3.0	526
9-24-64				3.64	1.15	4.04	0.13	4.82	1.50	2.43	0.11	1	0.11	0.54	2.7	240
				4.1	1.13	4.5	1	5.4	1.17							526
9-24-64	6.9	7.7	839	7.7	14	8.6	5	0	291	7.	8.6	9	0.8	0.54	2.9	524
				3.84	1.15	3.74	0.13	4.77	1.54	2.43	0.15	2	0.15	0.54	2.7	250
				4.3	1.13	4.2	1	5.4	1.17							
9-24-64	6.8	7.6	856	8.2	15	8.3	5	0	298	7.3	8.4	10	0.8	0.52	2.8	522
				4.09	1.23	3.61	0.13	4.88	1.52	2.37	0.16	2	0.16	0.52	2.7	266
				4.5	1.14	4.0	1	5.5	1.17							
9-24-64	6.8	7.5	451	6.9	12	3	0	232	4.6	7	3	0.4	0.01	0.01	2.0	528
				3.44	0.99	0.52	0.08	3.80	0.96	0.20	0.05	1	0.05	0.01	2.0	222
				6.8	2.0	1.0	2	7.6	1.19	4	1	1	0.05	0.01	2.0	280
9-24-64	6.9	7.5	844	7.3	13	9.4	5	0	294	7.1	8.6	6	0.8	0.57	3.0	530
				3.64	1.07	4.09	0.13	4.82	1.48	2.43	0.10	1	0.10	0.57	2.8	236
				4.1	1.12	4.6	1	5.5	1.17							
1S/ 4W-32E1 1 S	--	7.7	867	9.7	18	5.6	4.3	0	259	7.4	8.9	32	0.7	0.35	--	537
11-20-63				4.84	1.48	2.43	1.10	4.25	1.54	2.51	0.52					524
				4.9	15	25	11	4.8	1.17	28	6					524
6-25-64	--	7.3	401	6.2	9	8	2	0	207	3.0	8	10	0.3	0.02	2.1	316
				3.09	0.74	0.35	0.05	3.39	0.62	0.23	0.16	4	0.16	0.02	2.1	260
				7.3	17	8	1	7.7	14	5	5	5	0.16	0.02	2.1	192
1S/ 5W-13E 1 S	--	7.5	370	5.0	8	16	4	0	181	3.2	11	3	0.3	0.05	6	158
6- 8-64				2.55	0.66	0.70	0.10	2.67	0.67	0.31	0.05	1	0.05	0.05	6	206
				6.3	17	18	3	7.4	17	17	1	1	0.05	0.05	6	219

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	Specific conductance (micro-mhos at 25°C)	Mineral constituents in						parts per million equivalents per million percent resistance value						Mineral constituents in					
			Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silico	TDS	Expt 60°C	Expt 0°C	Total hardness	CaCO ₃	
Date sampled	C. a.	M. g.	N. a.	K	HCO ₃	CO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	Expt 60°C	Expt 0°C	Compounds	CaCO ₃				
MIDDLE SANTA ANA R HYDRO SUBUNIT YOLBU																				
RIVERSIDE HYDRO SUBAREA																				
15/ 5W-23C 1 S 3-18-64	--	7.9	380	--	--	--	0	189	37	10	--	--	--	--	--	--	--	84		
4- 9-64	--	7.4	404	1.90	0.49	38	0.10	0.52	4	0	142	44	21	3	0.3	0.20	--	230		
6- 8-64	--	7.8	272	2.00	0.33	2.0	0.08	1.30	3	0	105	28	16	1	0.4	0.01	4	144		
15/ 5W-23F 1 S 3-18-64	--	7.7	434	--	--	--	0	192	54	15	--	--	--	--	--	--	--	148		
4- 9-64	--	7.4	616	3.44	1.07	69	0.05	3.2	2	0	132	97	46	23	0.1	1.45	--	383		
6- 8-64	--	7.3	638	4.29	1.07	86	0.08	1.22	3	0	179	104	36	33	0.3	1.75	12	226		
15/ 5W-24E 1 S 3-11-64	--	8.0	359	64	1.6	52	0.05	0.52	1.2	0	216	202	1.30	0.37	6	34.8				
15/ 5W-24G 1 S 3-11-64	--	7.7	429	57	1.0	59	0.05	0.66	0.52	0	181	1b	9	10	0.2	0.05	--	237		
											2.97	0.37	0.25	0.16				163		
											14	79	10	4				200		
											15	33	15	8				183		
											15	2	30	12				242		
											15	0.05	0.62	0.34	0.40	0	--	269		
											19	15	69	14	8					

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million								
				Calcium C _o	Magnesium M _g	Sodium N _a	Potassium K	Carbonate C _{o₃}	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total dissolved solids TDS	TDS/1000	
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0 RIVERSIDE HYDRO SUBAREA Y01B7																		
15/ 5W-25D 2 S 3-11-64	--	8.0	421	2.79	0.65	0.05	0	192	0.56	0.34	0.40	0.03	0	--	261	185		
	--	7.8	377	2.54	0.57	0.05	0	184	0.26	0.20	0.35	0.04	0.01	--	243	172		
				0.90	0.22	0.14	0.1	0.02	0.04	0.13	0.15	0.05	0.01	0	24.1	22.3		
4-11-64				0.90	0.22	0.14	0.1	0.02	0.04	0.13	0.15	0.05	0.01	0	24.1	22.3		
15/ 5W-25E 1 S 3-11-64	--	7.8	442	6.0	1.1	0.61	0.05	0	199	0.29	0.34	0.42	0.01	0	--	270	195	
				0.99	0.20	0.13	0.1	0.26	0.60	0.71	0.13	0.07	0.01	0	25.2	25.2		
15/ 5W-25L 2 S 11-19-63	--	7.1	649	3.64	1.15	1.87	0.10	0	299	0.15	0.31	0.42	0.03	0.37	--	365	240	
				0.54	0.17	0.28	0.1	0.90	0.90	0.75	0.5	0.14	0.06	0.03	0.35	35.6	35.6	
6-23-64	--	7.6	694	3.64	1.07	1.96	0.10	0	295	0.31	0.65	0.76	0.03	0.28	32	40.0	23.6	
				0.54	0.16	0.29	0.1	0.84	0.84	0.73	0.10	0.12	0.05	0.03	0.35	39.3	39.3	
9-3-64	--	7.4	666	--	--	--	--	--	--	--	--	0.71	0.31	--	--	--	--	
15/ 5W-25R 1 S 11-22-6?	--	7.4	1244	3.9	3.44	4.47	1.30	51	0	373	1.18	1.00	0.6	0.99	--	81.1	34.6	
				3.6	2.0	3.4	1.0	0.26	0.46	4.8	1.11	2.82	1.34	1.11	1.34	75.4	75.4	
3-11-64	--	7.2	1231	1.15	1.17	0.40	1.13	4.4	0	348	1.30	1.05	1.4	0.6	0.41	--	77.4	35.7
				0.74	1.04	4.22	1.11	0.22	0.70	4.5	0.71	2.71	1.96	1.19	1.19	75.4	75.4	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Mineral constituents			Parts per million equivalents per million percent reionance value			Mineral constituents in parts per million						
			Specific conductance (micro-mhos at 25°C)	Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B7															
15/ 5W-25R 1 S 6-25-64	68	7.5	1373	1.18 5.89 43	1.48 1.56 11	0.91 1.56 35	6.1 11	0	230 3.77 27	182 3.79 28	184 5.19 38	6.2 1.00 7	0.6 0.23 17	910	369
9-30-64	68	7.6	1374	--	--	--	--	--	--	--	146 4.12	38 0.61	--	--	869
15/ 5W-25R 4 S 6-26-64	69	7.7	969	1.00 4.99 50	1.6 1.32 13	0.41 0.30 33	76 3.30 4	0	259 4.25 42	104 2.17 22	97 2.74 27	56 0.90 9	0.4 0.22 19	640	316
15/ 5W-27J 1 S 3-17-64	--	7.3	511	--	--	--	--	0	120 1.97	65 1.35	22 0.62	--	--	--	612
4- 6-64	64	7.4	781	1.13 5.64 72	1.4 1.15 15	0.96 0.10 12	0.10 1 1	0	200 3.28 43	71 1.48 19	42 1.16 15	110 1.77 23	0.1 0.19 --	--	552
15/ 5W-28H 1 S 3-17-64	--	6.8	422	--	--	--	--	0	132 2.16	59 1.23	13 0.37	--	--	--	476
4- 9-64	--	7.2	368	1.25 1.37	0.82 0.82	1.22 1.22	0.10 0.10	0	88 1.44 43	66 1.37 41	18 0.51 15	1.2 0.02 1	0.2 0.19 --	--	145
6- 8-64	--	7.6	385	4.0 2.00	0.9 0.74	1.17 0.17	0.10 0.10	0	153 2.51 29	53 1.10 62	15 0.42 27	3 0.05 10	0.3 0.01 1	0.01 6 10	209 196 104

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (%)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value				Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	K	Chloride	Sulfate	Nitrate	Boron	Silica
Date sampled	C.O.	M.Q.	N.O.	HCO ₃	CO ₃	SO ₄	HCO ₃	F	B	F	S.O.2	Calculated
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0 RIVERSIDE HYDRO SUBAREA Y01B7												
1S/ 5W-33L 1 S 4-10-64	--	7.6	557	3.7 1.85	2.2 1.81	0.2 0.05	0	1.68 2.75	4.9 1.02	0.7 0.26	0.08	--
1S/ 5W-34D 1 S 4-10-64	--	7.6	526	7.7 3.84	8 0.91	2.1 0.05	0	2.01 3.29	3.6 0.75	1.32 0.61	0	--
1S/ 5W-35G 1 S 11-19-63	7.0	7.8	446	63 3.14	11 0.90	2 0.05	0	2.09 3.43	26 0.54	14 0.37	0.03	--
6-23-64	--	8.1	412	64 3.19	7 0.58	2 0.61	0	2.07 3.39	26 0.54	13 0.37	0.04	266
9-30-64	6.9	7.8	490	--	--	--	--	7.2 7.6	11 12	8 5	0.03	202
1S/ 5W-35J 1 S 7- 7-64	--	8.1	773	107 5.34	18 1.48	4 0.10	0	3.71 6.08	44 0.92	21 1.41	0.34	--
1S/ 5W-35J 4 S 7- 7-64	--	8.1	769	102 5.09	21 1.73	4 0.10	0	3.76 6.16	41 0.85	15 10	0.35	--
1S/ 5W-35R 1 S 7- 7-64	--	7.9	643	88 4.39	30 1.48	3 0.08	0	3.05 5.00	39 0.81	11 12	0.16	294
SANTA ANA RIVER HYDRO UNIT Y0100												
1S/ 5W-33L 1 S 4-10-64	--	7.6	557	3.7 1.85	2.2 1.81	0.2 0.05	0	1.68 2.75	4.9 1.02	1.32 0.4	0.08	--
1S/ 5W-34D 1 S 4-10-64	--	7.6	526	7.7 3.84	8 0.91	2.1 0.05	0	2.01 3.29	3.6 0.75	14 1.1	0	--
1S/ 5W-35G 1 S 11-19-63	7.0	7.8	446	63 3.14	11 0.90	2 0.05	0	2.09 3.43	26 0.54	13 0.37	0.03	--
6-23-64	--	8.1	412	64 3.19	7 0.58	2 0.61	0	2.07 3.39	26 0.54	8 0.23	0	260
9-30-64	6.9	7.8	490	--	--	--	--	--	--	20 0.32	0	189
1S/ 5W-35J 1 S 7- 7-64	--	8.1	773	107 5.34	18 1.48	4 0.10	0	3.71 6.08	44 0.92	11 1.41	0.34	--
1S/ 5W-35J 4 S 7- 7-64	--	8.1	769	102 5.09	21 1.73	4 0.10	0	3.76 6.16	41 0.85	10 1.15	0.35	--
1S/ 5W-35R 1 S 7- 7-64	--	7.9	643	88 4.39	30 1.48	3 0.08	0	3.05 5.00	39 0.81	11 12	0.16	--

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million						
				Calcium	Magnesium	Sodium	Potassium	Sulfur	Chloride	Bicarbonate	Sulfate	Nitrate	Fuoride	Boron	Silica	TDS Evap (80°C) Evap (55°C Computed)
Date sampled				Mg	K	Na	SiO ₂	HCO ₃	Cl	F	B	SiO ₂				
MIDDLE SANTA ANA R HYDRO SUBUNIT YOIBU RIVERSIDE HYDRO SUBAREA YOIBU																
1S/ 5W-36A 1 S 1- 8-64	--	7.4	1202	156 7.78	26 2.14	5.9 2.07	4 0.10	0	3.2 0.52	428 8.91	39 2.48	0.6 0.63	0.15 0.15	--	901 816	
1S/ 5W-36B 6 S 11-20-63	--	7.7	899	78 3.89	13 1.07	92 4.00	9 0.23	0	259 4.25	112 2.33	36 2.14	0.9 0.58	0.45 0.45	--	496 248	
--	--	7.8	1060	99 4.94	15 1.23	102 4.43	12 0.31	0	268 4.39	141 2.94	90 2.54	0.8 0.73	0.49 0.49	--	545 556	
3-10-64	--	7.4	1079	113 5.64	14 1.15	112 4.87	15 0.38	0	327 5.36	136 2.83	95 2.68	0.8 0.71	0.42 0.42	22	3C9 637	
6-23-64	--	7.5	1477	--	--	--	--	--	--	--	46 24	23 23	6 6	--	710 713	
9-30-64	--	7.5	--	--	--	--	--	--	--	127 3.58	42 0.68	--	--	--	--	
1S/ 5W-36C 6 S 7- 7-64	--	8.3	472	62 3.09	12 0.99	24 1.04	3 0.08	12 0.40	188 3.08	38 0.79	33 0.37	0.4 0.53	0.06 0.06	24	320 314	
1S/ 5W-36F 1 S 4-10-64	--	7.6	808	113 5.64	16 1.32	43 1.87	4 0.10	0	342 5.61	61 1.27	60 1.6	0.5 0.50	0.38 0.38	--	348 497	
1S/ 5W-36F 4 S 7- 7-64	--	7.9	937	94 4.69	16 1.32	90 1.31	5 0.13	0	210 3.04	132 2.75	105 2.96	0.6 0.63	0.22 0.22	23	301 655	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity value								Mineral constituents in parts per million							
				Ca	Mg	Na	K	SiO ₂	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fuoride	Barium	Sulfate			
Date sampled	SANTA ANA RIVER HYDRO UNIT YO100																		
MIDDLE SANTA ANA R HYDRO SUBUNIT YO100 RIVERSIDE HYDRO SUBAREA																			
1S / 5W-36M 2 S 7- 7-64	--	7.7	703	7.7 3.84 50	2.0 1.64 21	2.09 0.10 27	0.10 1 1	0 4.52 60	1.10 1.10 60	1.49 0.47 20	53 0.47 6	2.9 0.44 25	0.44 25	4.70	274				
1S / 5W-36N 1 S 7- 9-64	--	7.9	602	7.3 3.64 58	1.2 0.99 16	1.57 0.10 25	0.10 2.5 2	0 3.16 50	1.71 2.7 27	0.85 1.4 14	34 0.55 9	0.4 0.08 26	4.46 4.46 4.30	232					
2S / 4W- 5C 1 S 6-26-64	69	7.5	888	9.5 4.74 51	2.1 1.73 19	6.4 2.78 30	4 0.10 1	0 2.74 4.49	6.7 1.39 15	85 2.40 26	64 1.03 11	0.9 0.08 16	5.59 5.59 5.52	324					
2S / 4W- 6A 1 S 4-11-64	--	7.3	763	9.7 4.84 60	1.4 1.15 14	4.6 2.00 25	4 0.10 1	0 4.57 56	7.2 1.50 18	57 1.61 20	30 0.48 6	0.7 0.09 --	4.97 4.97 300						
2S / 4W- 6K 2 S 11-20-63	--	7.7	1341	9.7 4.84 35	4.6 3.78 27	1.20 0.10 37	4 0.10 1	0 5.67 44	13.5 2.81 20	143 1.68 28	104 1.68 12	0.5 0.48 12	0.13 0.13 --	4.58 4.58 4.31					
6-26-64	--	8.0	1291	11.2 5.59 4.41	3.3 2.71 20	1.19 0.17 38	4 0.10 1	0 5.20 38	14.6 3.04 22	139 3.24 29	94 1.52 11	0.6 0.14 29	8.68 8.68 8.33	415					
2S / 4W- 6Q 2 S 11-19-63	--	7.2	1848	21.6 11.78 5.3	5.2 4.28 21	1.24 0.03 26	1 0.10 26	0 4.47 22	50.4 10.49 52	150 1.08 21	67 1.08 5	0.8 0.39 --	1386 1386 1249	754					
6-26-64	--	7.4	1542	18.1 9.03 5.2	3.8 3.13 18	1.19 0.10 30	4 0.10 1	0 4.84 28	29.5 7.75 45	156 3.84 22	52 0.84 5	0.6 0.36 24	1122 1122 1072	608					

TABLE E-I
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per cent reactivity						Mineral constituents in parts per million							
Date sampled				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Baron	Sulfate	TDS	Total hardness as CaCO ₃
				C _o	M _g	M _g	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	Ca	Equiv 180°C	Computed
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B7																	
2S/ 4W-6R 5 S 11-20-63	--	7.5	853	6.7 3.04 3.9	3.9 1.96 3.7	4.5 0.10 2.3	4 0.10 1	0 3.97 4.7	242 1.35 1.6	6.5 2.40 2.8	0.6 0.77 9	0.6 0.09 0.23	0.15 0.09 0.23	--	4.85 18 18	328 4.73 537	
6-26-64	6.7	7.8	842	10.4 5.19	20 1.64	4.8 2.09	4 0.10	0 4.61	281 1.69 1.19	81 2.09 1.19	42 0.68 0.7	0.6 0.68 0.7	0.09 0.18 0.18	18	53.7	342	
2S/ 5W-1J 2 S 3-11-64	--	7.7	918	7.9 3.94 4.2	16 1.32 1.4	9.1 0.15 4.2	16 0.15 2	0 3.93 4.3	240 2.15 2.12	102 2.62 2.23	9.3 0.56 2.8	0.7 0.56 6	0.41 0.41 0.41	--	560	263	
2S/ 5W-2P 1 S 9-15-64	--	7.8	70U	8.0 3.99	17 1.40	4.9 2.13	3 0.08	0 4.92	300 1.39	6.7 0.59	21 0.89	0.1 0.11	0.07 0.11	--	54.1	270	
2S/ 5W-1U 1 S 9-15-64	--	8.0	1118	--	--	--	0	4.04 6.62	-- 2.43	86 2.43	-- 0.89	-- 0.89	-- 0.89	--	44.6	360	
2S/ 5W-11A 1 S 6-23-64	6.8	7.7	791	9.9 4.94 5.8	19 1.56 18	4.5 0.10 2.3	4 0.10 1	0 3.92 4.6	239 2.35 2.8	113 1.69 20	60 0.55 6	0.4 0.10 0.10	24	53.0	325		
2S/ 5W-11K 2 S 1- 8-64	--	7.0	1189	--	--	--	--	--	215 3.52	-- 2.26	80 2.26	-- 0.84	-- 0.84	--	51.6	51.6	
1- 8-64	--	7.0	1215	15.8 7.88 5.6	4.2 3.45 2.5	5.8 0.15 1.8	6 0.15 1	0 3.44 2.5	210 3.44 2.5	374 7.79 5.7	84 2.37 17	0.4 0.09 1	0.20 0.20 1	--	900	56.7	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million								
				Calcium C. _o	Magnesium M _g	Sodium N _a	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Sulfur S _o	Total hardness as CaCO ₃		
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0 RIVERSIDE HYDRO Subarea																		
25/ SW-11K 2 S	--	7.0	1081	14.3	3.0	6.1	0	22.9	30.1	6.7	23	0.5	0.26	21	806	481		
	6-26-64	--	6.8	1162	7.14	2.47	2.65	0.13	3.71	6.27	1.89	0.37	0.3	3	764			
	6-26-64	--	6.7	1117	14.6	2.30	6.1	5	0	22.9	30.6	6.8	20	0.5	0.26	22	820	
	6-26-64	--	6.6	1246	7.29	2.65	0.13	3.75	6.37	1.92	0.32	0.3	3	769		480		
	6-26-64	--	7.0	909	14.9	3.0	6.1	5	0	22.6	32.2	6.8	19	0.5	0.24	22	837	
	9-25-64	--	6.6	982	7.44	2.47	2.65	0.13	3.70	6.70	1.92	0.31	0.2	2	496			
	9-25-64	--	7.0	911	9.3	3.1	5.9	1.9	2.1	2.9	5.53	15	2	2	788			
	9-25-64	--	7.6	911	17.8	3.8	5.9	0.6	0	21.7	4.35	6.7	2.6	0.5	0.20	19	976	
	9-25-64	--	7.0	124U	8.88	3.13	2.57	0.15	3.56	9.06	1.89	0.04	0.04	0.04	0.22	16	901	
	9-25-64	--	7.4	909	9.3	3.1	6.1	4	0	24.4	1.40	7.7	3.7	0.5	0.29	--	912	
	9-25-64	--	7.0	982	11.8	3.2	5.5	5	0	24.2	1.40	7.7	3.7	0.5	0.29	--	909	
	9-25-64	--	7.6	911	9.3	3.0	6.3	4	0	24.6	1.38	8.1	3.9	0.5	0.29	--	909	
	9-25-64	--	7.0	982	5.89	2.63	2.39	0.13	3.97	5.27	1.76	0	0.5	0.28	--	646	426	
	9-25-64	--	7.6	911	4.64	2.47	2.74	0.10	4.03	2.87	2.28	0.63	0.5	0.29	--	596	356	
	9-25-64	--	7.4	911	4.7	2.25	2.8	0.1	4.1	3.36	4.8	16	2.3	0.6	0.29	--	570	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	TDS	Total hardness as Evap 80°C / Evap 105°C
Date sampled	Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	TDS	Evap 80°C	Computed	CaCO ₃	
MIDDLE SANTA ANA R HYDRO SUBUNIT YOIBO RIVERSIDE HYDRO SUBAREA																	
25/ SW-11K 2 S 9-25-64	66	7.1	944	5.54 5.53	2.22 2.21	58 24	0.13 1	0	222 3.64 4.41 4.3	72 2.03 2.0	1.5 0.24 2	0.6 0.28	--	641	388		
9-25-64	64	7.3	910	10.1 5.04 5.51	2.5 2.06 2.1	60 0.10 0.10	4 0.10 0.10	0	237 3.88 3.08 4.0	77 2.17 3.2 3.2	33 0.53 5	0.5 0.28	--	610	598	355	
25/ SW-11M 1 S 11-20-63	--	7.7	627	7.8 3.89 5.9	1.52 0.008 1.6	35 23 1	0 0.008 0.008	0	246 4.03 6.0	66 1.37 2.0	23 0.66 1.0	0.6 0.07	--	565	565	248	
6-23-64	--	7.8	579	6.9 3.44 5.4	15 1.23 1.9	36 0.08 25	3 0.08 1	0	246 4.03 6.4	59 1.23 20	17 0.48 8	35 0.56 9	--	384	384		
25/ SW-12B 2 S 11-20-63	--	7.5	1499	16.3 8.13 5.0	4.9 4.03 2.5	90 0.15 1	6 0.15 24	0	220 3.61 3.61	322 6.70 22	181 5.10 42	0.6 0.69 32	0.04 0.04 4	26	375	234	
6-23-64	--	7.5	1361	16.1 8.03 5.1	3.8 3.13 2.0	100 0.15 28	6 0.15 1	0	285 4.03 3.1	301 6.67 4.1	137 3.86 25	0.7 0.45 3	23	1010	558		
25/ SW-12C 1 S 11-20-63	--	7.5	999	9.7 4.84 4.9	1.8 1.48 1.5	80 3.48 35	5 0.13 1	0	259 4.25 4.44	11.3 2.35 24	100 2.82 29	0.6 0.31 3	0.15	--	935	935	316
3-11-64	--	7.7	986	9.6 4.79 4.7	1.9 1.56 1.5	85 3.70 36	5 0.13 1	0	255 4.018 4.3	11.0 2.29 23	97 2.74 28	0.6 0.60 6	0.41	--	602	560	318
SANTA ANA RIVER HYDRO UNIT YOIBO																	
YOIBO																	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million						
			Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fuoride	Boron	Sulfate	Total hardness Evap 80°C vs 50°C
Date sampled			CO ₃	Mg	Na	K	HCO ₃	CO ₂	SO ₄	Cl	B	F	SiO ₂	SiO ₂	Computed
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0 RIVERSIDE HYDRO SUBAREA															
2S/ 5W-12C 1 S 6-23-64	--	7.6	909	85	23	62	0	266	107	87	38	0.05	0.36	18	590
			4.24	1.89	3.57	0.13	0	4.36	2.23	2.45	0.61				307
			4.3	19	36	1		4.5	23	25	6				577
9-15-64	--	7.8	900	71	25	87	5	0	254	103	89	0.02	0.27	--	584
			3.54	2.06	3.78	0.13		4.16	2.14	2.51	0.61				280
			3.7	22	40	1		4.4	23	27	6				54.3
2S/ 5W-12D 6 S 7-9-64	--	7.4	1036	125	24	68	5	0	224	176	113	0.06	0.16	21	735
			6.24	1.97	2.96	0.13		3.67	3.66	3.19	0.60				411
			6.2	17	26	1		3.3	33	29	5				680
2S/ 5W-12E 1 S 11-20-63	6.8	8.0	318	42	9	13	2	0	174	10	9	0.04	0.10	--	141
			2.10	0.74	0.57	0.05		2.85	0.21	0.25	0.10				142
			6.1	21	16	1		84	6	7	3				177
			6.1	21	16	1		84	6	7	3				177
6-23-64	--	7.7	304	46	5	11	1	0	178	11	5	3.2	0.03	0.06	26
			2.30	0.41	0.48	0.03		2.92	0.23	0.14	0.05				205
			7.1	13	15	1		87	7	4	1				136
2S/ 5W-12E 2 S 11-19-63	--	7.2	1339	155	43	69	6	0	261	268	131	0.07	0.27	--	954
			3.54	3.00	0.15	0.15		4.28	5.58	3.69	0.94				564
			7.73	54	25	21	1		30	39	25	6			859
6-23-64	--	7.1	1215	152	33	72	6	0	259	247	119	0.06	0.22	23	870
			7.58	2.71	3.13	0.15		4.25	5.14	3.36	0.66				515
			56	20	23	1		32	38	25	5				821
2S/ 5W-12F 1 S 7-9-64	--	7.8	1034	133	20	68	5	0	212	182	116	0.07	0.14	23	745
			6.64	1.64	2.96	0.13		3.47	3.79	3.27	0.63				414
			58	14	26	1		31	34	29	6				691

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per milliliter percent reactivity value						Mineral constituents in parts per million			
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fuoride
Date sampled	Ca	Mg	Na	K	CO ₂	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	COCO ₃
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B7													
2S / 5W-14G 2 S 6-23-64	--	7•7	575	74 3•69 58	13 1•07 17	1•48 0•08 23	0 1	203 3•33 53	99 2•06 33	28 0•79 13	3•8 0•05 1	0•12	29
2S / 5W-15G 2 S 11-19-63	70	7•6	499	61 3•04 59	10 1•22 16	28 0•05 24	0 1	192 3•15 60	57 1•19 23	29 0•82 16	6•4 0•05 2	0•09	--
2S / 5W-16A 3 S 9-15-64	--	7•8	830	90 4•49 46	25 2•06 21	69 3•013 31	5 0	330 5•41 55	104 2•17 22	75 2•12 22	8 0•1 1	0•17	--
2S / 5W-17R 1 S 9-15-64	--	7•9	630	102 5•09 51	28 2•48 23	57 0•10 25	4 0	315 5•16 51	121 2•52 25	60 1•69 17	4•7 0•76 8	0•12	--
2S / 5W-20R 1 S 11-22-63	--	7•7	612	83 4•14 65	10 0•82 13	32 1•39 22	1 U•U3	246 1•25 63	60 0•79 20	28 0•31 12	19 0•37 5	0•04	0•05
6-23-64	--	8•0	578	78 3•89 60	12 0•99 15	34 1•48 23	3 0•08 1	234 3•84 61	76 1•58 25	19 0•54 9	0•04	0•04	22
9-15-64	--	8•0	620	76 3•79 55	18 1•48 21	36 1•57 23	3 0•08 1	241 3•95 56	97 2•02 28	24 0•68 10	0•04	0•07	--
2S / 5W-21J 1 S 7-10-64	--	7•4	858	114 5•69 59	25 2•06 21	42 1•83 19	4 0•10 1	278 4•56 47	176 3•66 38	48 1•35 14	3•5 0•06 1	0•10	28

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per millilitre						Mineral constituents in parts per million						
			Magnesium	Sodium	Potassium	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfur dioxide	TDS	Total hardness	
Date sampled			Ca	Mg	K	CO ₃	HCO ₃	SO ₄	Cl	F	B	Exp 50°C	Exp 10°C	Calculated	
MIDDLE SANTA ANA R HYDRO SUBUNIT YOIBU															
2S/ 5W-22D 1 S 7-10-64	--	7.6	982	136	50	2.17	0.10	0	293	57	5.0	0.12	27	730	459
2S/ 5W-22R 1 S 9-15-64	--	7.9	440	61	7	2.38	1.9	1	4.80	4.89	1.61	0.08	1	6.88	181
2S/ 5W-29E 4 S 11-22-63	--	7.4	666	75	15	1.04	0.08	0	189	38	30	0.1	0.05	--	264
7-10-64	--	7.5	672	65	13	2.22	2.2	2	3.10	0.79	0.85	0.13	3	264	249
3S/ 4W-10A 1 S 11- 4-63	--	7.5	525	38	12	1.07	2.61	0.13	2.20	54	56	0.06	0.10	--	432
2S/ 4W-10R 2 S 11- 4-63	--	7.1	610	47	16	1.07	2.39	0.08	3.61	1.12	1.58	0.37	6	36.9	316
SANTA ANA RIVER HYDRO UNIT YO100															
2S/ 5W-22D 1 S 7-10-64	--	7.6	982	136	50	2.17	0.10	0	293	57	5.0	0.12	27	730	459
2S/ 5W-22R 1 S 9-15-64	--	7.9	440	61	7	2.38	1.9	1	4.80	4.89	1.61	0.08	1	6.88	181
2S/ 5W-29E 4 S 11-22-63	--	7.4	666	75	15	1.04	0.08	0	189	38	30	0.1	0.05	--	264
7-10-64	--	7.5	672	65	13	2.22	2.2	2	3.10	0.79	0.85	0.13	3	264	249
3S/ 4W-10A 1 S 11- 4-63	--	7.5	525	38	12	1.07	2.61	0.13	2.20	54	56	0.06	0.10	--	432
2S/ 4W-10R 2 S 11- 4-63	--	7.1	610	47	16	1.07	2.39	0.08	3.61	1.12	1.58	0.37	6	36.9	316
SANTA ANA RIVER HYDRO UNIT YO1B7															
2S/ 5W-22D 1 S 7-10-64	--	7.6	982	136	50	2.17	0.10	0	293	57	5.0	0.12	27	730	459
2S/ 5W-22R 1 S 9-15-64	--	7.9	440	61	7	2.38	1.9	1	4.80	4.89	1.61	0.08	1	6.88	181
2S/ 5W-29E 4 S 11-22-63	--	7.4	666	75	15	1.04	0.08	0	189	38	30	0.1	0.05	--	264
7-10-64	--	7.5	672	65	13	2.22	2.2	2	3.10	0.79	0.85	0.13	3	264	249
3S/ 4W-10A 1 S 11- 4-63	--	7.5	525	38	12	1.07	2.61	0.13	2.20	54	56	0.06	0.10	--	432
2S/ 4W-10R 2 S 11- 4-63	--	7.1	610	47	16	1.07	2.39	0.08	3.61	1.12	1.58	0.37	6	36.9	316

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reacione value				Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silicate	Total TDS
Date sampled				Mg	No	K	CO ₃	HCO ₃	SO ₄	Cl	B	F	Evap 80°C	Evap 105°C	hardness CaCO ₃	
COTTON-RIALTO HYDRO SUBUNIT YOIDO																
2N / 6W-22K 1 S 9-14-64	--	7.9	450	56 2•79	1•48 31	8 0•35	3 0•08	0 2	0 80	238 3•90	44 0•92	3 2	0 0•01	0 0•07	--	276
UPPER COTTON-RIALTO HYD SUBAREA YOID3																
1S / 5W- 5A 3 S 9-14-64	--	7.8	650	54 2•69	24 1•97	59 27	3 0•08	0 1	0 36	159 2•61	148 3•08	52 43	2 0•03	0 1•47	--	233
COTTON-RIALTO HYDRO SUBAREA YOID4																
1S / 4W-16P 4 S 3-16-64	--	7•4	353	--	--	--	--	0	139 2•28	24 0•50	30 0•85	--	--	--	--	420
COLTON-RIALTO HYDRO SUBAREA YOID5																
4 - 9-64	--	7.8	399	27 1•35	3 0•25	50 56	3 0•08	0 2	0 2•28	139 59	20 1•13	40 0•01	1•0 0•01	0•15	--	225
COLTON-RIALTO HYDRO SUBAREA YOID6																
1S / 4W-17G 1 S 3-18-64	--	8•2	758	--	--	--	--	0	279 4•57	78 1•62	68 1•92	--	--	--	--	213
SANTA ANA RIVER HYDRO UNIT YOLOO																
4 - 9-64	--	7.2	1019	95 4•74	22 1•81	57 2•48	6 0•15	0 2	102 1•67	63 1•31	221 6•23	1•0 0•02	0 0•1	0 0	--	59
SANTA ANA RIVER HYDRO UNIT YOLOO																
4 - 9-64	--	52	52	--	--	--	--	--	18	14	67	--	--	--	--	515

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reactivity value				Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfur dioxide	Total hardness as CaCO ₃
Date sampled				Co	Mg	K	No	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	S O ₂	CaCO ₃
COLTON-RIALTO HYDRO SUBUNIT Y01D4																
15/ 4W-17G 1 S 6- 8-64	--	7.4	925	4.34	1.81	22	53	0	90	41	223	1	0.04	4.60	5	719
15/ 4W-17N 1 S 2-21-64	--	7.8	481	3.09	0.90	11	19	4	0	168	46	14	0.5	0	--	490
15/ 4W-17R 1 S 3-16-64	--	7.7	577	--	--	0.83	0.10	2.75	0.96	0.39	0.69	14	0.39	0	--	342
4- 9-64	--	7.2	407	1.20	1.07	1.13	26	5	0	191	92	17	--	--	--	200
6- 8-64	--	8.2	434	2.35	1.07	0.96	0.13	0.66	2.06	0.71	0.71	0.02	0	0.08	--	282
15/ 4W-18E 1 S 4-10-64	--	8.0	479	3.64	0.74	13	22	5	0	129	77	17	0.32	0.02	7	93
15/ 4W-19O 1 S 3-18-64	--	8.0	442	--	--	0.70	0.08	2.11	1.60	0.48	0.48	15	0.23	0.02	--	114
4- 9-64	--	7.4	324	1.30	0.49	28	4	0	206	38	8	49.0	0.4	0.02	--	213

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents				parts per million equivalents per million percent reactivity				Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silico	TDS
Date sampled				Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	°F	Equiv. TDS °COS	Calculated COS
COLTON-RIALTO HYDRO SUBUNIT COLTON-RIALTO HYDRO SUBAREA Y0100																
15/ 4W-19D 1 S 6- 8-64	--	8.0	271	24 1•20	4 0•33	3 1•13	0•08	0	111 1•82	31 0•65	10 0•28	3 0•05	0•01	2	152	77
15/ 4W-19E 1 S 4- 9-64	--	7.2	303	28 1•40	7 0•58	4 0•96	0•10	0	122 2•00	31 0•65	10 0•28	2 0•03	0•18	--	175	99
15/ 4W-19H 1 S 2-21-64	--	7.9	510	76 3•79	4 0•33	5 1•17	0•13	0	142 2•33	100 2•08	27 0•56	4 0•44	0•02	--	422	206
3-16-64	--	7.8	448	--	--	--	--	0	168 43	100 38	20 10	8 8	--	--	329	169
4- 9-64	--	7.0	263	16 0•80	10 0•82	3 0•74	0•08	0	59 0•97	51 1•06	13 0•37	0 44	0•23	--	--	--
6- 8-64	--	8.3	379	47 2•35	10 0•82	3 0•70	0•08	9	119 1•95	48 1•00	9 0•25	5 0•47	0	14	252	159
15/ 4W-19K 1 S 2-18-64	--	7.8	488	64 3•19	11 0•90	4 0•87	0•10	0	171 2•80	49 1•02	12 0•34	6 0•71	0	--	244	205
4- 9-64	--	7.2	267	15 0•75	11 0•90	4 0•87	0•10	0	65 1•07	52 1•08	14 0•39	2 0•02	0•14	--	288	83
				29	34	33	4		42	42	15	1			155	150

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in equivalents per million								Mineral constituents in parts per million						
				Calcium M g	Magnesium M g	Sodium N a	Potassium K	Carbonate C O ₃	Bicarbonate H C O ₃	Sulfate S O ₄	Chloride C l	Nitrate N O ₃	Fluoride F	Boron B	Silica S i O ₂	TDS Total dissolved solids	Evd (OSCC) Evaporated at 105°C	Total hardness Calculated
Date sampled	in °F																	
COLTON-RIALTO HYDRO SUBUNIT YOID4																		
15/ 4W-21B 6	5	--	7.4	84	55	15	67	0	203	82	59	15	0.8	0.37	11	401	199	
10-23-63					2.74	1.23	2.91	0.15	3.33	1.71	1.66	0.24				411		
15/ 4W-21J 4	5	--	8.1	496	40	13	55	3	0	217	71	17	0.4	1.6	0.13	10	414	154
10-23-63					2.00	1.07	2.39	0.08	3.56	1.48	0.48	0.01				318		
15/ 4W-21J 5	5	--	8.0	554	47	13	59	3	0	242	54	27	1.0	1.1	0.12	14	331	171
10-23-63					2.35	1.07	2.57	0.08	3.97	1.12	0.76	0.02				338		
15/ 4W-21K 5	5	--	7.8	1491	185	62	69	6	0	63	634	100	18	0.6	0.54	--	1214	717
11-20-63					9.23	5.10	3.00	0.15	1.03	1.20	2.82	0.29				1106		
15/ 4W-21K 5	5	--	7.9	649	53	29	17	1	6	76	16	2					410	233
6-25-64					6.7	1.6	52	4	0	246	79	40	6.4	0.9	0.16	23		
15/ 4W-21K 9	5	--	7.5	1008	112	29	62	4	0	149	362	101	9.1	0.5	0.46	13	660	399
10-23-63					5.59	2.38	2.70	0.10	2.44	7.54	2.85	0.15				766		
15/ 4W-21L 3	5	--	7.5	625	66	12	49	4	0	229	77	36	7	1.0	0.24	--	410	214
11-20-63					3.29	0.99	2.13	0.10	3.75	1.60	1.02	0.11				365		
15/ 4W-21R 1	5	--	7.4	890	58	35	54	1	0	266	64	33	0.6	0.19	--	509	289	
11-19-63					2.89	2.88	2.35	0.03	4.36	1.33	1.83	0.53				441		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reaction				Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	TDS
Date sampled				Mg	Mg	K	No	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	Expt 105°C Expt 105°C Computed	CO ₂
COLTON-RIALTO HYDRO SUBUNIT																
COLTON-RIALTO HYDRO SUBAREA																
1S / 4W-21R 1 S	--	7.5	837	95	23	53	3	0	317	79	64	20	0.9	0.29	--	521
4-13-64				4.74	1.89	2.30	0.08	5.20	1.64	1.80	0.32	4				332
				53	21	26	1	58	18	20						494
6-24-64	--	7.3	840	91	27	56	4	0	332	86	64	16	0.8	0.32	22	545
				4.54	2.22	2.43	0.10	5.44	1.79	1.80	0.26	3				338
1S / 4W-22N 1 S	--	8.1	772	65	27	70	4	0	332	59	19	19				530
7- 2-64				3.24	2.22	3.04	0.10	5.44	1.79	1.80	0.26	3				530
1S / 4W-28E 1 S	--	7.4	964	--	--	--	--	0	332	63	17	20				475
1- 2-64									5.44	1.42	1.72	0.01				475
									63	17	20					475
1- 2-64	--	7.4	955	--	--	--	--	0	281	--	100	--	--	--	--	475
									4.61	2.82						475
																475
1- 2-64	--	7.4	959	79	18	97	6	0	300	73	95	52	0.6	0.56	--	574
				3.94	1.48	4.22	0.15	4.92	1.52	2.68	0.84	8				574
				40	15	43	2	49	15	27						574
1- 2-64	--	7.5	963	--	--	--	--	0	301	--	98	--	--	--	--	569
									4.93	2.76						569
1- 2-64	--	7.3	954	--	--	--	--	0	292	--	95	--	--	--	--	569
									4.79	2.68						569

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Mineral constituents in						Mineral constituents in						
			Specific conductance (micro-mhos at 25°C)	Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fission f	Boron B	Silica SiO ₂
COLTON-RIALTO HYDRO SUBUNIT Y01D4															
1S/ 4W-28E 1 S	--	7•3	963	--	--	--	--	--	--	275	--	96	--	--	--
2-25-64	--	7•4	964	--	--	--	--	--	285	4•51	2•71	--	--	--	--
2-25-64	--	7•3	978	87	15	95	6	0	278	72	97	62	0•5	0•51	--
2-25-64	--	7•3	985	4•34 44	1•23 12	4•13 42	0•15 2	4•56 47	1•50 15	2•74 28	1•00 10	--	--	--	597
2-25-64	--	7•1	976	--	--	--	--	--	282	4•62	2•71	--	--	--	572
2-25-64	69	7•1	941	78	19	100	7	0	290	80	94	56	0•6	0•54	36
5- 6-64	69	7•0	950	3•89 39	1•56 16	4•35 44	0•18 2	4•75 48	1•67 17	2•65 27	0•90 9	--	--	--	630
5- 6-64	69	7•2	955	82	19	100	7	0	299	78	96	56	0•6	0•54	36
5- 6-64	69	7•2	955	4•09 40	1•56 15	4•35 43	0•18 2	4•90 48	1•62 16	2•71 27	0•90 9	--	--	--	614
															273
															283
															645
															622
															640
															282
															623

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp. when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity						Mineral constituents in parts per million							
				Calcium C _o	Magnesium M _g	Sodium N _o	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Sulfur S _o	TDS Total Evap. loss	
Date sampled																	
COLTON-RIALTO HYDRO SUBUNIT																	
COLTON-RIALTO HYDRO SUBAREA																	
15 / 4W-28E 1 5 5- 6-64	66	7.2	952	80 3.99	20 1.64	100 4.35	7 0.18	0 4.88	0 4.8	298 1.67	80 2.74	56 0.90	0 0.9	35	64.0	28.2	
-- 7.9	957			84 4.19	15 1.23	103 4.48	8 0.20	0 4.90	0 4.8	299 1.71	82 2.59	66 1.06	0 1.0	39	62.3	27.1	
6-25-64				85 4.21	16 1.2	100 4.4	8 0.20	0 4.8	0 1.7	306 1.7	81 2.59	62 1.00	0 1.0				
6-25-64				85 4.24	16 1.32	100 4.35	8 0.20	0 5.02	0 1.69	306 1.69	81 2.59	62 1.00	0 1.0				
6-25-64				86 4.2	16 1.3	100 4.3	7 0.20	0 4.9	0 1.6	305 1.6	81 2.59	62 1.00	0 1.0				
6-25-64				86 4.29	16 1.32	100 4.35	7 0.18	0 5.00	0 1.69	305 1.69	81 2.59	62 1.00	0 1.0				
6-25-64				86 4.2	16 1.3	100 4.3	7 0.20	0 4.9	0 1.6	305 1.6	81 2.59	62 1.00	0 1.0				
6-25-64				87 4.34	15 1.23	100 4.35	7 0.18	0 5.00	0 1.71	305 1.71	82 2.62	62 1.00	0 1.0				
6-25-64				87 4.3	15 1.2	100 4.3	7 0.20	0 4.8	0 1.7	305 1.7	82 2.62	62 1.00	0 1.0				
6-25-64				85 4.24	15 1.23	100 4.35	7 0.18	0 5.02	0 1.71	306 1.71	82 2.59	64 1.03	0 1.0				
6-25-64				85 4.2	15 1.2	100 4.4	7 0.20	0 4.9	0 1.7	306 1.7	82 2.59	64 1.03	0 1.0				
6-25-64				85 4.24	15 1.23	100 4.35	7 0.18	0 5.02	0 1.71	306 1.71	82 2.59	64 1.03	0 1.0				
9-24-64	69	7.6	1013	95 4.74	17 1.40	98 4.26	7 0.18	0 5.20	0 1.73	317 1.73	83 2.74	60 0.97	0 0.9	37	65.3	30.7	
9-24-64	74	7.5	1012	103 5.14	17 1.40	91 3.96	6 0.15	0 5.41	0 1.67	330 1.67	80 2.82	53 0.85	0 0.8	31	65.6	32.7	
9-24-64																	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalent percent reactivity				Mineral constituents in parts per million				Mineral constituents in parts per million					
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfur dioxide	TDS	Total hardness
Date sampled				CO ₃	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	Combined CO ₂	
COLTON-RIALTO HYDRO SUBUNIT YOIDA																	
1S / 4W-28E 1 S 9-24-64	69	7.4	1011	1.02 5.09	1.48 14	91 3.96	6 0.15	0 1	0 5.46	333 51	100 1.69	51 2.82	0.6 0.82	33 8	653 647	329 647	
9-24-64	69	7.3	1011	99 4.94	1.40 4.7	95 4.13	6 0.15	0 1	325 5.33	82 1.71	99 2.79	53 0.85	0.6 0.85	34 8	652 646	317 646	
9-24-64	69	7.3	1008	97 4.84	1.40 1.40	95 3.9	7 0.18	0 2	322 5.28	84 1.75	97 2.74	56 0.90	0.6 0.52	35 35	650 650	312 312	
9-24-64	69	7.2	1015	93 4.64	1.48 1.48	98 4.0	7 0.18	0 2	319 5.23	84 1.75	99 2.79	54 0.87	0.6 0.54	34 34	648 648	306 306	
1S / 4W-28G 2 S 11-19-63	--	7.2	887	37 1.85	2.9 2.38	84 3.65	0 46	0 40	256 4.20	93 1.94	50 1.41	12 0.19	0.8 0.19	0 2	-- --	5.09 4.32	212 432
6-25-64	--	7.6	918	86 4.29	25 2.06	85 3.70	3 0.08	0 1	349 5.72	123 2.56	56 1.58	20 0.32	0.9 0.32	16 3	574 587	318 587	
9-29-64	--	7.5	957	--	--	--	--	--	--	--	57 1.61	19 0.31	-- 0.31	-- --	-- --	-- --	-- --
1S / 4W-28M 1 S 7-2-64	--	7.4	746	73 3.64	13 1.07	62 2.70	4 0.10	0 1	254 4.16	68 1.42	18 1.89	0.7 0.29	0.24 0.24	26 4	470 457	236 457	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reacience value				Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Total hardness as °D.S.	Evap 180°C	Evap 105°C	Computed CaCO ₃
Date sampled				Mg	K	No	CO ₃	HCO ₃	SO ₄	Cl	F	B	SiO ₂						
SANTA ANA RIVER HYDRO UNIT																			
Y0100																			
COLDTON-RIALTO HYDRO SUBUNIT Y0100																			
15/ 4W-28R 1 S 11-19-63	--	7.6	800	58	16	86	1	0	266	4.8	57	51	0.6	0.32	--	46.7	211		
				2.89	1.32	3.74	0.03		4.36	1.00	1.61	0.82							
				36	17	47			56	13	21	11							
6-25-64	--	7.8	673	48	13	80	3	0	249	38	53	37	0.7	0.11	24	44.9			
				2.40	1.07	3.48	0.08		4.08	0.79	1.49	0.60							
				34	15	50	1		59	11	21	9							
9-30-64	--	7.7	881	--	--	--	--	--	--	--	76	11	--	--	--	--	41.9		
15/ 4W-28R 3 S 4-10-64	--	7.7	620	57	11	60	3	0	231	57	48	20.0	0.9	0.12	--	39.4	187		
				2.84	0.90	2.61	0.08		3.79	1.19	1.35	0.32							
				44	14	41	1		57	18	20	5							
15/ 4W-29A 1 S 11-70-63	72	8.0	406	36	3	45	2	0	151	36	20	8.3	0.3	0.05	--	25.0	103		
				1.80	0.25	1.96	0.05		2.47	0.75	0.56	0.13							
				44	6	48	1		63	19	14	3							
69 7.6	428	55	7	28	3	0	192	36	36	17	9.8	0.3	0.03	21	271	166			
				2.74	0.58	1.22	0.08		3.15	0.75	0.48	0.16							
				59	13	26	2		69	17	11	4							
15/ 4W-29H 3 S 11-70-63	--	8.0	752	84	14	52	4	0	233	71	68	15	0.8	0.17	--	4.69	267		
				4.19	1.15	2.26	0.10		3.82	1.48	1.92	0.24							
				54	15	29	1		51	20	26	3							
6-23-64	--	7.3	673	76	15	51	4	0	256	79	44	11	0.8	0.18	23	42.0	251		
				3.79	1.23	2.22	0.10		4.20	1.64	1.24	0.18							
				52	17	30	1		58	23	17	2							

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalent reactance value				Mineral constituents in parts per million			
				Calcium C _o	Magnesium M _g	Sodium N _a	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂
COLTON-RIALTO HYDRO SUBUNIT COLTON-RIALTO HYDRO SUBAREA YOIDO YOIDO															
1S / 4W-29H 3 S 9-30-64	--	7.8	742	--	--	--	--	--	--	--	--	54	33	--	--
1S / 4W-22E12 S 6-26-64	70	7.2	808	62	13	94	6	0	260	76	82	0.9	0.48	33	520
	3-09	1.07	37	13	4.09	0.15	4.26	1.026	1.58	2.31	0.26	3	2.31	3	208
	37	13	4.9	2	4.9	2	51	1.9	19	27	3	3	3	3	511
6-26-64	70	7.6	801	69	12	93	5	0	260	77	83	0.8	0.46	32	510
	3-04	0.99	4.04	12	4.04	0.13	4.26	1.026	1.60	2.34	0.26	3	2.34	3	222
	4.0	12	4.7	2	50	1.9	50	1.9	19	28	3	3	3	3	510
6-26-64	70	7.3	803	69	10	93	6	0	260	78	83	0.8	0.46	32	510
	3-04	0.82	4.04	10	4.04	0.15	4.26	1.026	1.62	2.34	0.26	3	2.34	3	516
	4.1	10	4.8	2	50	1.9	50	1.9	19	28	3	3	3	3	516
6-26-64	70	7.3	801	68	11	93	5	0	260	78	83	0.9	0.46	32	510
	3-03	0.90	4.04	11	4.04	0.13	4.26	1.026	1.62	2.34	0.26	3	2.34	3	213
	4.0	11	4.8	2	50	1.9	50	1.9	19	28	3	3	3	3	516
6-26-64	70	7.8	330	38	12	11	2	0	175	15	6	0.1	0.05	--	520
	1-90	0.99	0.48	29	0.48	0.05	0.287	0.31	0.17	0.10	3	3	3	3	215
	56	29	14	1	83	9	5	9	5	9	5	5	5	5	515
1S / 5W-2K 1 S 9-14-64	--	7.8	244	28	8	11	2	0	114	18	2	0.3	0	4	145
	1-40	0.66	0.48	25	0.48	0.05	0.187	0.37	0.25	0.10	1	1	1	1	176
	54	25	19	2	74	15	10	15	10	1	1	1	1	1	122
1S / 5W-11E 1 S 6- 8-64	--	7.7	396	62	7	12	2	0	203	22	7	0.4	0.03	--	103
	3-09	0.58	0.52	12	0.52	0.05	0.33	0.46	0.20	0.10	5	5	5	5	138
1S / 5W-12N 1 S 4-10-64	--	7.9	396	62	7	12	2	0	203	22	7	0.4	0.03	--	184
	3-09	0.58	0.52	12	0.52	0.05	0.33	0.46	0.20	0.10	5	5	5	5	250
	73	14	14	1	76	10	10	10	10	10	5	5	5	5	237

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million reagent				Mineral constituents in parts per million			
				Calcium C _o	Magnesium M _g	Sodium N _a	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Sulfate S.O ₂
COLTON-RIALTO HYDRO SUBUNIT YOID4															
1S/ 5W-12H 1 S 3-18-64	--	7.9	383	--	--	--	--	0	154	54	17	--	--	--	25
1S/ 5W-13M 1 S 4- 9-64.	--	7.6	423	23	4	59	4	0	172	44	16	0.5	0.1	0.14	--
1S/ 5W-36A 1 S 6-26-64	--	7.7	1326	1.15	0.33	2.57	0.10	2.82	0.92	0.45	0.01	0.01	0.1	0.14	245
RECHE HYDRO SUBAREA YOID5															
2S/ 3W-18D 1 S 10- 2-63	80	7.7	396	26	8	39	1	0	137	1	39	11	0.7	0.20	--
2S/ 4W-12M 1 S 10- 3-63	70	7.0	467	1.30	0.66	1.70	0.03	2.25	0.23	1.10	0.18	5	272	98	272
				35	18	46	1	60	6	29	5				203
															134
															317
															243

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reacancy value						Mineral constituents in parts per million								
			C _o	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	F	SiO ₂	TDS	Evap 180°C	Total hardness as CaCO ₃	Evap 105°C	Computed
Date sampled																	
UPPER SANTA ANA HYDRO SUBUNIT CAJON HYDRO SUBUNIT Y01E0 Y01E1																	
3N/ 6W-7H 1 S 9-14-64	--	8.2	77.0	60	1.23	1.10	0	4.10	9.3	1.7	7.0	0.05	--	516	211		
				2.99	1.3	4.78	0.13	6.72	1.94	0.48	0.11				510		
					52	52	1	73	21	5	1						
3N/ 6W-260 1 S 9-14-64	--	8.0	55.0	61	1.1	52	2	0	293	34	18	8.0	0.02	--	330	197	
				3.04	0.90	2.26	0.05	4.80	0.71	0.51	0.13						
				49	14	36	1	78	12	8	2						
3N/ 6W-28B 1 S 9-14-64	--	8.1	75.0	76	1.0	91	5	0	389	84	20	8.0	0.10	--	530	231	
				3.79	0.82	3.96	0.13	6.38	1.75	0.56	0.13						
				44	9	46	1	72	20	6	1						
SANTA ANA RIVER HYDRO UNIT Y0100																	
1S/ 3W-30 1 S 6-15-64	64	8.0	49.0	46	1.18	2.9	2	0	170	32	16	66.0	0.08	--	332	189	
				2.30	1.48	1.26	0.05	2.79	0.67	0.45	1.06						
				45	29	25	1	56	13	9	21						
1S/ 3W-9E 7 S 3-10-64	--	7.9	31.4	34	8	17	2	0	139	11	18	5.0	0.19	--	195	118	
				1.70	0.66	0.74	0.05	2.28	0.23	0.51	0.08						
				54	21	23	2	74	7	16	3						
6-15-64	--	7.9	300	30	8	18	3	0	142	10	13	3.0	0.25	--	158	108	
				1.50	0.66	0.78	0.08	2.33	0.21	0.37	0.05						
				50	22	26	3	79	7	13	2						
1S/ 3W-13P 2 S 6-15-64	64	7.5	46.0	14	39	16	4	0	193	41	9	31.0	0.10	--	268	196	
				0.70	3.21	0.70	0.16	3.16	0.85	0.25	0.50						
				15	68	15	2	66	18	6	11						

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity								Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	TDS	Total hardness °dH		
UPPER SANTA ANA HYDRO SUBUNIT BUNKER HILL HYDRO SUBAREA																			
YOLIU YOLIU YOLIU																			
1S/ 3W-14R 1 S 6-15-64	65	7.5	485	54	19	15	3	0	184	38	11	46.0	0.8	0.08	--	296	213		
1S/ 3W-15A 1 S 6-15-64	--	7.9	365	54	1.56	0.65	0.08	3.02	0.79	0.31	0.74	15	0.08	--	277	200	158		
1S/ 3W-15M 3 S 6-15-64	59	7.8	365	45	11	17	2	0	208	8	7	3.0	0.2	0.08	--	200	158		
1S/ 3W-16A 1 S 9-21-64	--	7.5	274	2.25	0.90	0.74	0.05	3.41	0.17	0.20	0.05	1	5	0.10	--	195	156		
1S/ 3W-16J 1 S 6-15-64	60	7.6	390	51	7	15	2	0	156	24	8	29.0	0.2	0.10	--	222	156		
1S/ 3W-17C 3 S 3-10-64	--	7.7	406	2.54	0.58	0.55	0.05	2.56	0.50	0.23	0.47	13	6	0.10	--	213	153		
1S/ 3W-17L 1 S 6-15-64	64	7.7	900	56	6	17	2	0	152	28	9	39.0	0.2	0.08	--	193	106		
				2.69	0.49	0.74	0.05	2.49	0.58	0.25	0.63	16	6	0.03	--	230	159		
				68	12	19	1	63	15	6	1.70	0.39	0.27	0	--	216	170		
				2.25	1.15	0.57	0.05	2.62	0.79	0.28	0.37	7	9	0.02	--	224	166		
				56	29	14	1	65	19	7	1.70	0.27	0.02	0.02	--	210	166		
				40	16	15	2	0	163	32	14	1.70	0.2	0.02	--	216	170		
				2.00	1.32	0.65	0.05	2.67	0.67	0.39	0.27	7	10	0.02	--	592	390		
				50	33	16	1	67	17	10	1.42	0.79	1.42	0.18	--	547	397		
				5.99	1.81	1.22	0.08	3.80	2.98	16	1.42	0.9	0.18	--	547	397			
				66	20	13	1	42	33	9	1.42	0.9	0.18	--	547	397			

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value				Mineral constituents in parts per million				Total hardness °C	
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	
Date sampled	C	Mg	Na	K	CO ₂	HCO ₃	SO ₄	Cl	NO ₃	F	B	Boron	Calculated
UPPER SANTA ANA HYDRO SURFACE BUNKER HILL HYDRO SUBAREA													
15/ 3W-18L 1 S 6-16-64	64	8.2	770	3.29	4.03	1.57	0.08	36	0	231	126	20	118.0
				3.37	4.45	1.18	1	3.79	4.3	2.62	0.56	1.90	366
15/ 3W-20R 2 S 6-15-64	70	7.8	550	55	1.56	1.26	0.05	29	0	215	35	26	33.0
				49	2.74	2.28	1	3.52	6.4	0.73	0.53	0.8	532
15/ 3W-28E 2 S 6-15-64	74	7.8	660	46	2.30	2.38	0.08	29	0	209	46	57	39.0
				34	3.34	3.30	1	3.43	5.2	0.61	0.63	0.8	322
15/ 3W-28H 1 S 6-15-64	75	7.7	560	46	2.30	2.2	0.05	40	0	214	40	28	42.0
				30	1.81	1.74	0.05	3.51	6.0	0.79	0.68	0.8	306
15/ 3W-28M 2 S 6-15-64	76	7.5	480	39	1.95	0.49	0.08	6	0	190	32	30	9.0
				39	1.39	1.10	0.05	4.48	50	3.11	0.67	0.15	1.61
15/ 3W-31H 1 S 6-15-64	66	8.2	920	57	2.84	3.21	0.05	94	2	333	92	49	100.0
				43	2.8	3.2	0.05	4.09	40	5.46	1.92	1.38	0.05
15/ 4W- 3H 2 S 6-16-64	64	8.2	370	36	1.80	1.81	0.08	22	11	0	214	12	4.0
				43	4.3	4.3	0.08	0.48	12	3.51	0.25	0.20	0.06
15/ 4W- 5E 5 S 6-17-64	63	7.7	515	57	2.84	2.84	0.08	23	16	0	242	50	11
				52	52	34	0.08	1.89	13	3.97	1.04	0.31	0.02
									1	72	19	6	—
													280
													237
													289

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per cent reaction				Mineral constituents in parts per million equivalents per cent reaction				Mineral constituents in parts per million equivalents per cent reaction					
				Calcium c. ^o	Magnesium M _g	Sodium N _O	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	T.D.S. Exp. 180°C ca	Total hardness Exp. 105°C CaCO ₃ Computed
UPPER SANTA ANA HYDRO SUBUNIT BUNKER HILL HYDRO SUBAREA																	
15/ 4W-8F 7 S 6-17-64	62	7.9	500	59	21	14	0	215	60	16	2.0	0.05	--	--	316	234	
15/ 4W-10F 1 S 6-16-64	66	8.1	370	2.94 55	1.73 32	0.61 11	0.08 1	3.52 67	1.25 24	0.45 9	0.03 1	0.05	--	--	281		
15/ 4W-13E 7 S 11-19-63	52	7.8	471	53	14	18	0	193	10	12	4.0	0.08	0.28	--	206	152	
6-24-64	--	7.4	510	72	13	19	3	0	3.16 84	0.21 6	0.06 9	0.05	--	--	195		
15/ 4W-13F 2 S 10-14-63	--	7.6	344	45	8	16	2	0	151	83	18	1.5	0.04	0.05	--	249	190
6-17-64	60	7.8	420	2.25 61	0.66 18	0.70 19	0.05 1	2.05 73	84	1.73 31	0.51 31	0.02 8	0.05	--	--	265	
9-21-64	--	7.9	247	26	6	19	1	0	156	27	10	7.6	0.4	0.28	24	212	146
15/ 4W-13G 2 S 3-10-64	--	7.7	421	1.85 2.64	1.56 0.90	1.9 21	2 17	0	183	31	15	8.0	0.2	0.57	--	234	171
									2.05 73	15	10	0.42 10	0.13 10	0.12 3		222	
												3.7	0.5	0.03	--	182	90
												0.06	0.06	--	--	138	
												2	2	--	--	235	177
												0.54 11	0.18 12	0.38	--	232	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in°F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million deficient reactivity value				Mineral constituents in parts per million						
				Calcium C _a	Magnesium M _g	Sodium N _a	K	Chloride Cl	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Chlorate Cl	Nitrate NO ₃	Sulfide S ₂ O ₃	Boron B	Sulfur S	Total hardness Evap 80°C Evap 105°C Compounded CaCO ₃		
Date sampled	Y0100												SANTA ANA RIVER HYDRO UNIT					
UPPER SANTA ANA HYDRO SUBUNIT																		
1S/ 4W-13G 2 S 6-17-64	60	8.2	44.0	3.7 1.85 4.1	2.1 1.73 3.8	0.05 0.87 1.9	0	1.98 0.25 7.4	2.4 0.48 1.1	1.7 0.16 4	10.0 0.16 11	0.2 0.46 0.3	--	240	179			
9-21-64	--	7.5	41.8	5.5 2.74 6.1	1.2 0.74 0.05	0.05 1.6 1	0	2.01 3.29 7.4	2.5 0.52 1.2	1.6 0.45 1.0	10.0 0.16 4	0.3 0.46 0	--	229 365 187				
1S/ 4W-13L 1 S 3-10-64	--	7.9	38.5	4.8 2.40 6.1	1.0 0.82 0.21	0.05 0.65 1.7	0	1.60 2.0 1.1	3.0 0.62 2.62	1.1 0.31 0.42	26.0 0.2 0.11	0.2 0 8	--	237 220 161				
6-16-64	--	7.8	40.0	4.6 2.30 5.8	1.1 0.90 0.23	0.05 0.74 1.9	0	1.64 2.0 1.1	3.0 0.69 0.62	1.1 0.31 0.31	27.0 0.4 0.11	0.4 0.44 8	--	220 221 160				
1S/ 4W-14J 3 S 11-22-63	67	7.4	89.8	11.9 5.04 5.9	3.3 2.71 2.7	0.10 0.10 1.1	0	2.39 3.92 3.9	2.7 5.21 5.2	3.7 0.76 8	0.2 0.06 1	0.15 0.07 11	--	230 225 160				
6-24-64	67	7.9	87.2	13.0 6.49 6.3	2.8 2.30 2.2	0.10 0.10 1.1	0	2.54 4.16 4.1	2.1 5.45 5.3	2.6 0.59 6	0.5 0.04 6	0.07 0.06 0	28	664 440 632				
9-29-64	--	7.3	97.0	--	--	--	--	--	3.00 6.25 0.71	2.5 4.0 0.71	4.0 0.06 0.06	--	--	--	585			
1S/ 4W-15M 2 S 6-16-64	76	8.4	60.0	4.7 2.35 3.6	2.3 1.89 1.29	0.08 0.17 0.1	5	2.18 3.57 3.55	1.02 2.12 3.33	0.0 0.62 10	1.0 0.62 10	--	--	372 362 212				

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reionance value						Mineral constituents in parts per million								
			Calcium C _a	Magnesium M _g	Sodium N _a	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	T.O.S. Evap 180°C	Total hardness °S	Evap 105°C °S
UPPER SANTA ANA HYDRO SUBUNIT YOLE2																	
15/ 4W-16P 1 S 3-18-64	--	7.1	4.22	--	--	--	0	1.56	30	4.0	--	--	--	--	--	9.5	
6- 8-64	--	8.1	3.27	2.0	0.25	1.96	4.5	0	2.00	8	3.9	1.0	1.0	0.08	5	17.1	6.3
15/ 4W-21B 5 S 7-20-64	--	7.2	1.135	--	--	8	6.0	0.05	6.1	5	3.3	0.02	1	--	--	18.4	
15/ 4W-22E 1 S 11-20-63	--	7.9	5.02	3.2	0.33	3.00	6.9	2	0	1.59	3.92	4.8	1.0	--	--	--	
6-74-64	--	8.0	4.78	3.1	0.33	3.09	7.1	0.05	6.0	0.58	1.47	0.07	1	--	--	31.7	
9-29-64	--	7.8	2.06	--	--	7	6.2	1	0	5.2	31	31	0.02	--	--	27.3	
15/ 4W-22L 5 S 11-19-63	7U	7.8	4.42	2.30	0.90	1.43	3.3	0.03	0	1.93	2.9	4.4	1.0	2.4	0.70	--	9.7
6-25-64	6.9	7.9	4.47	2.35	0.82	1.52	3.5	0.05	0	1.90	2.6	2.6	0.02	0.64	2.7	3.00	9.4

TABLE E-I
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Total hardness Evap 105°C	
Date sampled				Na	Mg	K	CO ₂	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	CaCO ₃		
UPPER SANTA ANA HYDRO SUBUNIT BUNKER HILL HYDRO SUBAREA																	
1S/ 4W-22N 3 S	--	7.5	83.0	--	--	--	--	--	--	8.2	1.71	1.86	0.26	16.0	--	--	--
7-20-64				33.0	--	--	--	--	--	--	1.3	2.0	--	--	--	--	--
1S/ 4W-23D 2 S	--	7.9	33.0	--	--	--	--	--	--	0.37	0.03	--	--	--	--	--	--
9-29-64																	
1S/ 4W-23P 3 S	72	7.9	40.5	--	--	--	--	--	--	--	1.6	4.0	--	--	--	--	--
9-29-64											0.45	0.06	--	--			
1S/ 4W-25B 2 S	--	7.7	76.0	4.8	2.8	8.0	0.2	0	30.1	6.2	4.8	26.0	0.6	0.10	--	4.66	235
6-16-64				2.40	2.30	3.48	0.05	4.93	1.29	1.35	0.42	0.2	5	--	--	--	--
1S/ 4W-25B 1 S	65	7.7	92.0	5.2	4.4	8.7	2	0	35.0	8.8	5.8	41.0	0.6	0.14	--	5.50	311
6-16-64				2.59	3.62	3.78	0.05	5.14	1.83	1.64	0.66	0.2	7	--	--	--	--
1S/ 4W-25C 1 S	--	7.5	55.5	3.7	8	7.0	1	0	22.4	4.0	4.2	5.0	0.8	0.10	--	3.08	126
11- 9-63				1.85	0.66	3.04	0.03	3.67	0.83	1.18	0.08	0.1	1	--	--	--	--
1S/ 4W-26F 1 S	--	8.2	57.0	3.3	1.65	0.74	9	83	0	23.9	4.3	4.1	0.0	0.6	0.25	--	254
6-16-64				2.27	1.2	6.0	1	3.61	0.05	3.92	0.90	1.16	0.1	0.0	--	--	120
1S/ 4W-26F 1 S	75	8.0	53.9	3.7	1.85	0.41	5	78	3	0	2.29	4.5	3.7	2.0	1.0	0.14	335
6-24-64				3.27	1.39	3.09	0.08	3.75	0.94	1.04	0.03	0.1	1	--	--	--	113
				59	7	59	1	65	1.16	18	--	--	--	--	--	--	346

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride				
Date sampled	Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SO ₂					
UPPER SANTA ANA HYDRO SUBUNIT Y01E2																	
1S/ 4W-26J 1 S 6-16-64	73	7.8	560	3.3 1.65	2 0.16	90 3.91	0.1 0.03	0	221 3.62	3.7	4.5	0.0	0.10	--	334	91	
1S/ 4W-27B 2 S 11-19-63	--	7.6	679	54 2.69	14 1.15	69 3.00	1 0.03	0	251 4.11	45 0.94	59 1.66	10.0 0.16	1.1 2	--	317	358	192
6-24-64	--	7.6	644	53 2.64	13 1.07	71 3.09	3 0.08	0	264 4.33	54 1.12	48 1.35	9.5 0.15	1.0 1.19	22	377	400	186
9-29-64	--	7.7	687	--	--	--	--	--	--	--	46 1.30	6.0 0.10	0.12	--	--	404	
1N/ 3W-27N 1 S 6-15-64	--	8.1	460	4.2 2.10	12 0.99	40 1.74	2 0.05	0	171 2.80	50 1.04	17 0.48	20.0 0.32	2.0 0.10	--	300	155	
1N/ 3W-31K 2 S 6-16-64	--	8.4	600	4.3 1.50	20 1.40	36 3.17	1 0.03	0	60 3.11	60 0.94	13 0.37	2.0 1.50	7 6	--	269	370	145
1N/ 3W-32C 1 S 6-15-64	79	7.9	570	51 2.54	13 1.07	59 2.57	2 0.05	0	230 3.77	49 1.02	22 0.62	43.0 0.69	0.8 0.11	--	376	376	181
1N/ 4W-29E 1 S 6-16-64	64	8.2	520	45 2.25	30 2.47	15 0.65	3 0.08	0	243 3.98	45 0.94	7 0.20	13.0 0.21	0.2 4	--	353	294	236

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million						
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	TDS
Date sampled																Total hardness as Evap 105°C Computed
UPPER SANTA ANA HYDRO SUBUNIT Y01E0 BUNKER HILL HYDRO SUBAREA Y01E2																Caco ₃
1N/ 4W-29F 1 S 3-10-64	--	6.5	1215	181 9.03 63	4.2 3.45 24	0.18 1.61 11	0.11 1.13 1	0 26 5	311 261 0	368 7.66 54	33 0.93 7	26.0 0.42 0	1.02	--	91.1	624
6-16-64	--	7.8	1170	93 4.64 33	9.8 8.06 58	0.13 1.13 8	0.13 0.1 1	0 4.28 31	414 8.62 61	28 0.74 6	21.0 0.34 2	0.02	1.02	--	84.8	636
9-21-64	--	7.2	513	72 3.59 64	17 1.40 25	1.3 0.7 10	3 0.08 1	0 244 71	48 4.00 18	9 0.25 4	24.0 0.39 7	0.05	0.05	--	81.5	250
1N/ 4W-29P 2 S 6-16-64	--	8.0	510	46 2.30 41	31 2.55 4.6	1.5 0.65 12	0.3 0.08 1	0 242 72	43 9.0 16	13 0.37 7	16.0 0.26 5	0.04	0.02	--	36.3	306
2N/ 3W-19L 2 S 12-26-63	--	7.2	171	19 0.95 52	5 0.41 23	1.0 0.43 24	1 0.03 2	0 1.05 91	0 1.72 91	6 0.17 9	0.5 0.01 1	0.02	0.02	--	29.6	243
7-13-64	--	6.9	173	18 0.90 51	5 0.41 23	1.0 0.43 24	1 0.03 2	0 1.05 86	94 1.54 3	7 0.06 3	0.0 0.20 11	0.04	0.04	--	28.6	68
2N/ 4W- 6R 1 S 12-26-63	--	6.8	122	7 0.35 28	3 0.25 20	1.5 0.65 52	0 0.17 0	0 0.44 59	8 0.17 14	10 0.28 23	2.9 0.05 4	0.02	0.01	--	13.8	93
7-13-64	--	6.3	124	9 0.45 44	0 0.27 56	1.3 0.59 56	0 0.59 17	0 0.36 16	8 0.17 24	3.0 0.25 5	0.0 0.05 5	0.01	0.01	--	12.1	66

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per percent reactivity value						Mineral constituents in parts per million					
				Calcium Co.	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Sulfate SO ₄
PERRIS HYDRO SUBUNIT															
PERRIS VALLEY	Y02A1	Y02AU	Y02A1												
3S/ 3W-2L 1 S 11- 7-63	80	8.0	39U	2.6	4.4	0.3	0	1.31	2.0	4.6	1.1	0.4	0.12	2.0	27.8
4S/ 3W-2E 2 S 11-12-63	--	8.2	910	1.30	3.62	0.08	2.43	2.15	0.42	1.30	0.18	0.4			24.6
4S/ 3W-6C 1 S 11- 5-63	--	7.8	467	77	24	76	7	0	202	39	162	30	0.2	0.15	2.7
4S/ 4W-1G 1 S 11-12-63	--	7.7	490	1.97	3.84	0.18	3.30	0.31	0.81	4.57	0.48	5			29.1
WINCHESTER HYDRO SUBAREA	Y02A3			2.8	3	72	2	0	81	15	99	13	0.6	0.41	2.4
5S/ 2W-26H 2 S 11- 7-63	70	8.0	365U	4.09	320	10	0	1.46	563	883	6.1	0.1			
LAKEVIEW HYDRO SUBAREA	Y02A4			2U.41	3.95	13.91	0.26	2.39	11.72	24.90	0.10				
3S/ 2W-32G 1 S 11- 5-63	--	8.0	139U	15	2	311	3	0	225	0	357	7.8	8.0	5.25	16
				0.75	0.16	13.52	0.08	3.69	3.69	10.07	0.13				84.0
				5	5	1	93	27		72	1				83.6

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value				Mineral constituents in parts per million								
				Magnesium	Sodium	Potassium	Carbonate + bicarbonate	Chloride	Nitrate	Fuoride	Boron	Silicate	T.D.S.	Total hardness	Calculated	CaCO ₃
Date sampled				Ca	K	Na	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	Evap 80°C	Evap 105°C	Computed		
PERRIS HYDRO SUBUNIT																
LAKEVIEW HYDRO SUBAREA				Y02AU				Y02AA4				Y0200				
3S/ 2W-33P 1 S 11- 6-63	85	8.2	1310	27	2	285	4	0	265	9	322	0	3.10	1.7	818	76
				1.35	0.16	12.39	0.10		4.34	0.19	9.08					
				10	1	89	1		32	1	6.7					
4S/ 2W-7J 3 S 6-19-64	69	8.1	1110	48	12	195	4	0	191	20	304	0.0	1.0	3.60	—	802
				2.40	0.99	8.48	0.10		3.13	0.42	8.57					
				8	71	1			26	3	71					
4S/ 2W- 9H 1 S 4-17-64	—	8.2	872	40	11	124	5	6	110	150	112	1.0	0.8	0.90	—	682
				2.00	0.90	5.39	0.13	0.20	1.80	3.12	3.16	0.02				
				11	64	2			22	38	38					
4S/ 2W-11E 1 S 4-17-64	—	7.9	844	45	6	120	5	0	116	150	105	2.0	0.6	0.50	—	538
				2.25	0.49	5.22	0.13	0.22	1.90	3.12	2.96	0.08				
				28	65	2			24	39	37	1				
4S/ 3W-12J 1 S 11-13-63	80	7.8	940	24	3	187	2	0	63	44	266	0	1.06	1.52	18	494
				1.20	0.25	8.13	0.05	0.25	1.03	0.92	7.50					
				12	3	84	1		11	10	79					
HEMET HYDRO SUBAREA																
4S/ 1W-21D 2 S 11- 5-63	70	7.8	1582	108	14	170	8	0	128	240	244	4	0.6	0.70	—	1002
				5.39	1.15	7.39	0.20		2.10	5.00	7.02	0.06				
				38	8	52	1		15	35	50					
4S/ 2W-11B 1 S 6-19-64	69	7.8	830	25	2	167	4	0	134	126	134	0.0	2.2	2.75	—	857
				1.25	0.16	7.26	0.10	0.16	2.20	2.62	3.08					
				14	2	83	1		26	30	44					

TABLE E-I
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	Specific conductance (micro-mhos at 25°C)	Mineral constituents in						Mineral constituents in								
			Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfate			
Date sampled			No.	Mg	No.	K	CO ₃	HCO ₃	SO ₄	Cl	B	SO ₄	Total Evap (0°C) as CaCO ₃				
PERRIS HYDRO SUBUNIT																	
45/ 2W-36J 1 S	72	7.8	648	0.70	0.08	4.87	0.05	2	0	183	72	53	2	39			
10- 2-63				12	1	85	1	50	3.00	0.50	1.49	0.03	1.1	0.30	--		
55/ 1W-2UH 1 S	76	7.8	933	4.64	0.90	3.39	0.15	6	0	177	190	64	13	0.3	0.10	--	
10- 1-63				51	10	37	2	37	2.90	3.96	1.80	0.21	20	2			
55/ 1W-2UQ 2 S	--	8.2	820	3.14	1.56	3.61	0.10	83	4	0	173	99	117	11	0.2	0.15	25
11-14-63				37	19	43	1	43	34	2.84	2.06	3.30	39	2			
55/ 1W-21A 1 S	76	7.6	687	2.89	0.58	2.52	0.08	58	3	0	162	75	66	13	0.3	0	--
10- 1-63				48	10	42	1	42	42	2.66	1.56	1.86	21	30	3		
55/ 1W-27L 1 S	74	7.6	753	2.54	0.74	3.22	0.05	51	9	0	159	40	96	28	0.5	0.20	--
10- 1-63				39	11	49	1	49	22	2.61	0.83	2.71	41	7			
55/ 2W-24A 2 S	72	7.7	1994	1.62	1.56	8.52	0.20	196	8	0	98	250	398	12	0.5	0.90	--
10- 1-63				44	8	46	1	46	1	1.61	2.21	11.22	62	9			

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reactivity				Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fuoride	Boron	Silica	TDS Total hardness
Date sampled	Ca	Mg	K	No	CO ₂	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	Exp 180°C	Exp 105°C	Combusted CaCO ₃	
SAN JACINTO HYDRO SUBUNIT Y02B1																
4S/ 1E-3UD 1 S 6-11-64	--	7.9	680	3.64	1.23	0.10	0	176	172	0.0	0.04	0.12	--	454	244	
3S/ 2W- 7P 1 S 10- 2-63	80	8.4	933	0.30	0.33	0.03	1	2.88	3.58	0.79	--	--	427	427	32	
3S/ 2W-21B 1 S 11- 5-63	--	8.5	1675	1.30	0.41	18.48	0.03	36	323	12	9	3.6	0.70	--	687	
3S/ 2W-23H 1 S 11- 8-63	80	7.8	440	0.15	0.15	0	0	1.20	5.29	0.25	2.59	0.15	2	527	86	
4S/ 1W-16C 1 S 10- 2-63	72	7.3	403	1.80	0.33	1.65	0.05	13	56	0.3	27	0	1.5	0.47	23	1090
5S/ 1W- 1C 1 S 10- 1-63	68	7.7	391	1.47	0.9	6	24	0	898	0	146	0	0	0	0	1096
SAN JACINTO VALLEY HYDRO UNIT Y02D0																
4S/ 1E-3UD 1 S 6-11-64	--	7.9	680	3.64	1.23	0.10	0	176	172	0.0	0.04	0.12	--	454	244	
3S/ 2W- 7P 1 S 10- 2-63	80	8.4	933	0.30	0.33	0.03	1	2.88	3.58	0.79	--	--	427	427	32	
3S/ 2W-21B 1 S 11- 5-63	--	8.5	1675	1.30	0.41	18.48	0.03	36	323	12	9	3.6	0.70	--	687	
3S/ 2W-23H 1 S 11- 8-63	80	7.8	440	0.15	0.15	0	0	1.20	5.29	0.25	2.59	0.15	2	527	86	
4S/ 1W-16C 1 S 10- 2-63	72	7.3	403	1.80	0.33	1.65	0.05	13	56	0.3	27	0	1.5	0.47	23	1090
5S/ 1W- 1C 1 S 10- 1-63	68	7.7	391	1.47	0.9	6	24	0	898	0	146	0	0	0	0	1096
SAN JACINTO VALLEY HYDRO UNIT Y02D1																
4S/ 1E-3UD 1 S 6-11-64	--	7.9	680	3.64	1.23	0.10	0	176	172	0.0	0.04	0.12	--	454	244	
3S/ 2W- 7P 1 S 10- 2-63	80	8.4	933	0.30	0.33	0.03	1	2.88	3.58	0.79	--	--	427	427	32	
3S/ 2W-21B 1 S 11- 5-63	--	8.5	1675	1.30	0.41	18.48	0.03	36	323	12	9	3.6	0.70	--	687	
3S/ 2W-23H 1 S 11- 8-63	80	7.8	440	0.15	0.15	0	0	1.20	5.29	0.25	2.59	0.15	2	527	86	
4S/ 1W-16C 1 S 10- 2-63	72	7.3	403	1.80	0.33	1.65	0.05	13	56	0.3	27	0	1.5	0.47	23	1090
5S/ 1W- 1C 1 S 10- 1-63	68	7.7	391	1.47	0.9	6	24	0	898	0	146	0	0	0	0	1096

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per thousand percent reaction value						Mineral constituents in parts per million							
			Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Sulfide	Boron	Silica	TDS	Evap 80°C	Evap 105°C
Date sampled		Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	F	B				Hardness	Computed CO ₃
LAGUNA HYDRO SUBUNIT																
ALISO HYDRO SUBAREA																
7S / 8W-32L 2 S 10-23-63	68	7.9	44.00	24.0 11.98	18.7 15.38	735 31.96	7 0.18	0	44.2 7.24	1531 31.88	752 21.21	0	0.6	1.08	19	3914 3690
4-27-64	--	7.5	52.72	--	--	54 26	54	--	0	4.73 7.75	755 21.29	--	--	--	--	--
ZOLIAO																
ZOLIA3																
SAN JUAN HYDRO UNIT																
ZOL100																

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent reactivity				Mineral constituents in				
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	
Date sampled				CO ₃	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	
SAN JUAN HYDRO SUBUNIT																
20100																
SAN JUAN HYDRO UNIT																
20100																
6S/ 5W-17H 1 S 6-25-64	59	7.3	710	60 2.99 4.1	24 1.97 2.7	54 2.35 32	0.05 0.03	0 4.02 53	245 2.31 31	111 1.21 16	43 0 0	0.02 0.13	--	515	24.8	
6S/ 7W-11U 1 S 5-29-64	--	7.4	607	92 4.88 53	35 1.22 14	28 1.22 14	1 0.03	0 4.06 46	248 4.27 49	205 0.45 5	16 0	0.1 0.08	22	415	374	
6S/ 7W-12B 2 S 5-29-64	--	7.7	753	83 4.14 53	31 2.55 33	24 1.04 13	1 0.03	0 3.64	222 3.98	191 0.39	14 5	0.1 0.06	19	521	574	
6S/ 7W-12F 1 S 5-29-64	--	8.2	521	77 3.84 73	7 0.58 11	19 0.83 16	1 0.03	10 0.33	185 3.03	185 1.31	63 0.45	0.1 0.01	0.06 0	19	535	335
6S/ 8W-26B 2 S 5-29-64	--	7.6	1848	112 5.59	76 6.25 28	180 7.83 32	3 0.08	0 6.23 31	380 9.04 45	434 9.94 24	175 0	0.3 0.01	--	472	472	
7S/ 6W-4ES1 S 9- 2-64	--	9.3	--	4 0.20	0 3.83	88 0.03	1 --	-- 0.50	70 1.97	70 0	0.0 0.13	--	--	336	221	
7S/ 7W-17PS1 S 6-19-64	--	8.1	1400	158 7.88 47	43 3.54 21	120 5.22 31	6 0.15	-- 5.05 30	308 8.05 49	390 8.12 21	124 3.50 21	0.7 0.01	0 0.25	31	1278	592
7S/ 7W-19D 2 S 10-21-63	--	7.4	742	103 5.14 66	13 1.07 20	35 1.52 1	2 0.05	-- 4.16	254 2.87 53	138 0.76 37	27 0.01	0.5 0.04	0 0.21	512	1198	571
															311	311
															465	465

TABLE E-I
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per millon percent reactivity						Mineral constituents in parts per million								
				Calcium C _o	Magnesium M _g	Sodium N _a	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	TDS Evap 180°C Evap 105°C Computed	Total hardness as CaCO ₃	
SAN JUAN HYDRO SUBUNIT																		
Z0100																		
7S/ 7W-32R 1 S 1- 8-64	7.3	1374	7.4 3.69 2.8	1.15 8.35 9	14 26 2.14	192 63 0.05	2 0 0.05	0 0 2.74	267 4.38 32	198 4.12 30	178 5.09 37	0.8 0.09 1	0.47 0.08 --	24 820	24.2			
7S/ 7W-34NS1 S 6-25-64	8.0	870	5.5 2.74 3.6	26 36 28	63 36 36	2 0.05 1	2 0 0.05	0 4.16 1.33	254 4.16 54	64 2.03 17	72 0.18 26	11 2 2	0.6 0.08 26	-- 440 418	24.4			
7S/ 7W-36A 1 S 1- 8-64	7.1	696	7.2 3.59 5.3	18 1.48 2.25	39 1.70 2.5	1 0.03 0.03	0 0 0	0 3.56 51	217 1.94 28	93 1.94 19	48 0.4 2	8.6 0.14 1.35	0.06 26	26 444 413	25.4			
5-15-64	--	736	6.5 3.24	25 2.06	-- 0	0 3.61	0 2.25	0 1.55	220 1.55	108 55	55 --	-- --	-- --	-- --	26.5			
7S/ 8W-13GS1 S 6-19-64	7.3	1600	14.5 7.24 3.7	51 4.19 21	178 7.74 4.0	13 0.33 2	0 6.29 32	384 7.25 37	213 6.01 31	348 7.25 37	0 0.03 31	0.8 0.03 31	0.33 0.05 18	23 1251 1161	57.2			
7S/ 8W-25B 2 S 1- 8-64	7.1	788	9.9 4.94 6.1	19 1.56 19	37 1.61 20	1 0.03 0	0 3.72 4.6	227 3.02 37	145 1.30 16	46 1.30 16	1.8 0.3 16	0.3 0.03 16	0.05 0.02 18	18 532 532	32.5			
7S/ 8W-25B 3 S 1- 8-64	7.2	794	10.0 4.99 6.1	20 1.64 20	35 1.52 19	1 0.03 0	0 3.64 4.4	222 3.03 39	153 1.35 16	48 0.3 16	1.6 0.3 16	0.3 0.03 16	0.02 0.02 18	18 517 517	33.2			
7S/ 8W-25B 4 S 1- 8-64	7.2	794	10.1 5.04 6.0	19 1.56 19	40 1.74 21	1 0.03 0	0 4.00 4.8	244 3.02 36	145 1.24 15	44 0.04 15	2.4 0.04 15	0.3 0.05 15	0.05 23 496	23 524 496				

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled	pH	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million							
			Specific conductance (micro-mhos at 25°C)	Calcium Co.	Magnesium M g	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fugitive F	Boron B	Silica SiO ₂	
SAN JUAN HYDRO SUBUNIT																
7S/ 8W-25N 2 S	--	7.9	1081	127	28	--	0	253	227	76	--	--	--	--	432	
7S/ 8W-25N 5-14-64				6.34	2.30			4.15	4.73	2.14						
7S/ 8W-36C 1 S	7.2		869	105	24	39	2	--	239	170	51	0.3	0.05	20	586	
7S/ 8W-36C 10-21-63				5.24	1.97	1.70	0.05	3.92	3.54	1.44	0.18				361	
7S/ 8W-36L 2 S	7.3		1484	125	40	122	1	4.3	3.39	16	2				540	
7S/ 8W-36L 10-21-63				6.24	3.29	5.30	0.08	--	256	327	132	0.3	0.04	20	1022	
7S/ 8W-36P 3 S	7.2		1240	180	7	80	2	--	264	283	91	1.5	0.3	0.06	20	477
7S/ 8W-36P 10-21-63				8.98	0.58	3.48	0.05	4.33	5.89	2.57	0.24				478	
7S/ 8W-36P 4 S	7.2		1279	123	29	111	2	--	272	288	105	2.4	0.4	0.10	18	808
7S/ 8W-36P 10-21-63				6.14	2.38	4.83	0.05	4.46	6.00	2.96	0.04				813	
5-14-64	--	8.0	1452	143	35	--	0	263	355	129	--	--	--	--	501	
				7.14	2.88	4.31	0	4.31	7.39	3.64						
8S/ 7W-5C 2 S	7.7		1653	149	40	159	4	--	287	422	139	--	0.17	23	1176	
8S/ 7W-5C 10-21-63				7.44	3.29	6.91	0.10	4.70	8.79	3.92					537	
8S/ 7W-5E 5-14-64	--	8.0	1129	110	31	--	0	218	290	80	2.26	--	--	--	402	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million								
				Calcium C _o	Magnesium M _g	Sodium N _a	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Sulfur S _{o₂}			
SAN JUAN HYDRO SUBUNIT																		
8S / 7W- 6H 1 S 1- 8-64	7.1	7.1	1955	216	50	146	3	0	281	593	181	0	0.5	0.27	23	1424	745	
8S / 7W- 6H 3 S 10-23-63	7.1	6.4	1840	10.78	4.11	6.35	0.08	30	4.61	12.35	5.10	23	0.53	26	1351	1351		
8S / 7W- 6H 3 S 5-14-64	7.5	7.5	1975	12.77	3.21	3.9	167	4	0	258	689	177	0	0.4	0.53	26	1564	800
8S / 7W- 6J 2 S 5-14-64	--	8.0	1848	10.98	4.52	5.65	0.08	21	4.23	14.34	4.99	21	0.5	0.28	24	1486	1486	
8S / 7W- 6J 5 S 1- 8-64	--	7.9	1974	175	4.8	--	--	0	276	600	168	0	0.5	0.28	24	1459	776	
8S / 7W- 6J 5 S 5-14-64	--	7.9	189	3.95	3.78	--	--	0	203	582	161	--	--	--	--	1336	1336	
8S / 7W- 6J 5 S 1- 8-64	7.4	9.4	1882	9.38	4.03	6.96	0.08	20	3.4	12.12	4.54	22	0.5	0.24	23	1340	671	
8S / 7W- 6K 2 S 5-14-64	--	7.7	1723	9.08	3.78	--	--	0	278	575	189	5.33	--	--	--	1284	1284	
8S / 8W- 1L 1 S 10-23-63	8.1	6.4	1450	1.49	7.3	9.6	2	0.05	4.17	0.26	152	9.0	0.2	0.16	23	1146	673	
											4.19	8.72	4.29	0.15	1		1059	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Mineral constituents in parts per million equivalents in percent reaeration						Mineral constituents in parts per million								
			Specific conductance (micro-mhos at 25°C)	Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Total Computed S.O ₂		
SAN JUAN HYDRO SUBUNIT																	
20180																	
8S/ 8W-1L 1 S 1- 8-64	7.2	1588	200 9.98	41 3.37	85 20	2 0.05	0	286 4.69	400 8.33	141 3.98	11.3 0.18	0	0.07	23	1119 1044		
5-14-64	--	8.0	1564	187 9.33	36 2.96	--	0	285 4.67	402 8.37	140 3.95	--	--	--	--	615		
8S/ 8W-12L 1 S 10-21-63	7.4	1848	212 10.58	51 4.19	131 5.70	3 0.08	--	378 6.20	480 9.99	161 4.54	1.1 0.02	0	0.10	19	1337 1244		
8S/ 8W-12L 3 S 1- 8-64	7.6	1882	236 11.78	48 3.95	147 6.39	3 0.08	0	389 6.38	508 10.58	180 5.08	0 5.08	0	0.18	19	1364 1333		
8S/ 8W-12L 4 S 10-7-2-63	7.8	1360	140 6.99	64 5.26	99 4.30	3 0.08	0	296 4.85	409 8.52	127 3.58	0 3.24	0	0.19	20	1086 1008		
1- 8-64	--	1540	202 10.08	42 3.45	71 3.09	2 0.05	0	345 5.65	384 7.99	115 3.47	0 1.19	0	0.07	21	1112 1007		
5-14-64	--	8.1	1540	186 9.28	38 3.13	--	0	353 5.79	389 8.10	121 3.41	--	--	--	--	621		
8S/ 8W-14H 2 S 10-21-63	7.3	2140	257 12.82	69 5.57	128 0.10	4 23	--	372 6.10	579 12.50	204 5.75	26 0.42	0	0.06	13	1579 1463		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reionance value				Mineral constituents in parts per million				TDS Evap 105°C Computed	Total hardness as CaCO ₃	
				Calcium	Magnesium	Sodium	Potassium	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate	Chloride Cl	Nitrate NO ₃		
SAN JUAN HYDRO SUBUNIT														
8S/ 8W-14H 2 S 5-14-64	--	7.9	2747	309 15.42	86 7.07	--	--	0	343 5.62	777 16.18	331 9.33	--	--	1125
8S/ 8W-14O 1 S 8-27-64	--	7.2	4500	480 23.95	159 13.08	404 17.57	6 0.15	0	511 8.38	1069 22.26	830 23.41	2.5 0.04	0.31	--
8S/ 8W-23A 4 S 2-21-64	--	7.5	2946	333 16.62	84 6.91	315 13.70	10 0.26	0	442 7.24	970 20.20	303 8.54	0.2 0.04	0.29	16
8-27-64	--	7.3	2748	294 14.67	97 7.98	252 10.96	4 0.10	0	393 20	895 56	287 24	0.7 0.01	0.27	--
9S/ 8W-23A 7 S 2-21-64	--	7.7	1993	218 10.88	52 4.28	165 7.17	6 0.15	0	324 24	531 5.31	220 11.06	0 6.20	0.04	12
SAN JUAN HYDRO UNIT														1381
Z0100														1364
Z0100														759

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (7)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity								Mineral constituents in parts per million				
				Mg	K	Na	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	S	SiO ₂	Calculated
Date sampled																
SAN CLEMENTE HYDRO SUBUNIT ZO1C0																
9S / 7W-10A 1 S 10-10-63	--	7.2	735	56	21	75	3	0	187	107	85	0	0.16	29	4.58	226
				2.79	1.73	3.26	0.08	3.40	2.06	2.23	2.40					
				35	22	41			4.0	2.29	3.1					
10-23-63	--	7.6	670	43	25	70	3	0	199	93	80	0	0.4	2.2	4.68	211
				2.15	2.06	3.04	0.08	4.1	3.26	1.94	2.26					
				29	28	41			4.4	2.6	3.0					
7-20-64	--	8.0	800	48	28	82	3	0	187	110	99	0	0.4	0.16	--	4.34
				2.40	2.30	3.57	0.08	51	3.06	2.29	2.79					
				29	28	43	1		38	28	34					
9S / 7W-10A 2 S 10-10-63	--	8.3	790	50	18	98	3	0	177	111	105	0	0.4	0.22	30	4.62
				2.50	1.48	4.26	0.08	51	0.10	2.90	2.31	2.96				
				30	18	51	1		1	35	28	36				
10-23-63	--	7.9	800	48	29	99	4	0	204	122	188	0	0.4	0.20	24	5.52
				2.40	2.38	4.30	0.10	47	3.34	2.54	5.30					
				26	26	47		1	30	2.53	4.7					
9S / 7W-10A 3 S 10-10-63	--	8.2	785	56	23	80	4	0	215	115	89	0	0.4	0.19	27	6.15
				2.79	1.89	3.48	0.10	44	3.52	2.39	2.51					
				34	23	42	1		42	28	30					
10-23-63	74	7.5	800	45	33	91	4	0	203	147	88	0	0.4	0.23	29	5.00
				2.25	2.71	3.96	0.10	30	3.33	3.06	2.48					
				25	30	44	1		38	34	28					
7-20-64	--	7.7	850	49	34	87	4	0	210	147	96	0	0.2	0.15	--	5.56
				2.45	2.80	3.78	0.10	41	3.44	3.06	2.71	33				
				27	31	41			37	37	29					
SAN JUAN HYDRO UNIT ZO100																

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value				Mineral constituents in parts per million								
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fuoride	Boron	Sulfur dioxide	
Date sampled				mg	mg	Na	K	HCO ₃	CO ₃	SO ₄	B	F		TDS Total Edu 180°C Edu 65°C Combed CaCO ₃		
SAN CLEMENTE HYDRO SUBUNIT																
Z01C0																
95/ 7W-10H 1 S 10-23-63																
95/ 7W-10H 1 S 10-23-63	77	7.7	770	46	23	80	4	0	218	97	74	0	0.04	0.028	29	45.8
				2.30	1.89	3.48	0.10	1	3.57	2.02	2.09					210
				30	24	45			4.6	26	27					4.61
7-20-64																
	--	8.2	780	41	28	86	4	0	222	99	79	0	0.02	0.018	--	4.40
				2.05	2.30	3.74	0.10	1	3.64	2.06	2.23					218
				25	28	46			4.6	26	28					4.46
SAN JUAN HYDRO UNIT																
Z0100																

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance value						Mineral Constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	T.D.S.	
Date sampled				Na	Mg	K	CO ₃	HCO ₃	SO ₄	Cl	F	B	SiO ₂	Equivalent to 105°C Computed	Total hardness as CaCO ₃		
SAN MATEO HYDRO SUBUNIT																	
9S/ 7W-11A 1 S 10-24-63	--	7.9	590	4.6 2.30	1.56 3.36	58 2.52	1 0.03	0 1.64	171 2.80	79 1.43	67 2.25	11 0.18	0.18 0.29	23	394	193	
9S/ 7W-14G 1 S 10-24-63	64	8.2	750	6.4 3.19	1.97 3.39	69 3.00	1 0.03	0 3.39	207 2.08	100 2.76	98 2.53	6.3 0.10	0.2 0.23	23	388	258	
9S/ 7W-14L 1 S 10-24-63	64	7.1	1060	7.4 3.69	5.0 4.11	100 4.35	2 0.05	0 3.47	212 4.58	220 4.15	147 3.36	0 0.4	0.20 0.15	19	600	487	
																390	
SAN JUAN HYDRO UNIT																	
																	717

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents percent				Mineral constituents in parts per million			
				Colicium C	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silico SiO ₂
DF LUZ HYDRO SUBUNIT GAVILAN HYDRO SUBAREA															
8S/ 3W-7D 3 S 6-23-64	85	7.5	1140	3.69	52	82	4	0	189	226	142	0	0.04	0.05	--
				3.32	4.28	3.57	0.10	3.10	4.00	4.00	4.00				399
					37	31	1	26	34	40					673
SANTA MARGARITA HYDRO UNIT															
Z02B0				Z02B2				Z02B3				Z02B0			
VALLECITO'S HYDRO SUBAREA															
9S/ 3W-10 1 S 6-12-64	64	7.8	1110	3.44	69	41	4	0	187	70	188	95	0.04	0.07	--
				3.31	3.37	4.26	0.10	3.06	1.46	5.30	1.53	13			672
					30	38	1	27	13	47					341
9S/ 3W-12M 1 S 6-12-64	68	8.0	620	1.65	33	21	.71	0	159	68	75	14	0.06	0.07	--
				25	1.73	3.09	0.03	2.61	1.42	2.12	0.23	33			657
					27	48		41	22			4			384
															169
															362

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (2)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Chloride	Sulfate	Bicarbonate	Carbon dioxide	Nitrate	Fuoride	Boron	Silicon	TDS	Total Hardness as CaCO ₃
Date sampled																	
MURRIETA HYDRO SUBUNIT WILDOMAR HYDRO SUBAREA																	
7S/ 4W-2B 2 S	--	8.0	745	2.45	1.32	9.3	1	0	222	52	103	9	0.02	0.05	--	4466	189
MURRIETA HYDRO SUBAREA				31	17	4.04	0.03	4.7	1.08	2.90	0.15	2				432	
7S/ 3W-17E 4 S	--	7.5	770	3.29	1.97	2.43	0.03	0	262	35	93	3	0.1	0.05	--	446	263
7-15-64				43	26	56	1	4.29	0.73	2.05	1					407	
7S/ 3W-17P 2 S	--	8.0	950	8.0	2.8	84	1	0	299	40	137	12	0.1	0.05	--	558	315
7-15-64				3.99	2.30	3.65	0.03	4.90	0.83	3.86	0.19	2				529	
7S/ 3W-24O 3 S	--	7.7	440	1.40	2.8	1	6.9	0	128	17	65	5	0.04	0.20	--	240	74
7-16-64				31	2	3.00	0.03	2.10	0.35	1.83	0.08	2				250	
7S/ 4W-12H 2 S	--	7.3	400	1.55	0.49	6	4.5	0	104	14	57	25	0.1	0.12	--	248	102
7-15-64				38	12	1.96	0.03	1.70	0.29	1.61	0.40	10				230	
FRENCH HYDRO SUBAREA																	
6S/ 7W-33E 1 S	--	7.4	660	6.1	1.9	4.5	3	0	160	85	69	13	0.02	0.02	--	436	230
7-16-64				3.04	1.56	1.96	0.08	2.3	2.62	1.77	1.95	3				374	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	Specific conductivity (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction						Mineral constituents in parts per million parts per million						
			Calcium C o	Magnesium M g	Sodium N a	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Baron F	Silicate SiO ₂	TDS Evap 180°C as Evap 105°C Compacted CaCO ₃	
MURRIETA HYDRO SUBUNIT DIAMOND HYDRO SUBAREA	65/ 1W- 4J 1 S 10- 1-63	80 44	7.6 10	6.05 0.58	5.0 2.52	7 0.05	5.8 0.45	2 1	0 51	1.83 3.00	5.5 1.15	13 1.49	0.3 0.21	0 4	-- 421
SANTA MARGARITA HYDRO UNIT	Z0200														328
MURRIETA HYDRO SUBUNIT DIAMOND HYDRO SUBAREA	Z02C0														
	Z02C6														

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reaction value				Mineral constituents in parts per million					
				Mg	Na	K	HCO ₃	SO ₄	Cl	NO ₃	F	B	S	SO ₂	CaCO ₃		
Date sampled																	
AGUANGA HYDRO SUBUNIT																	
AGUANGA HYDRO SUBAREA																	
8S/ 1E-36N 1 S	66	8.3	520	38	11	61	6	14	61	23	0.6	0.24	--	322	140		
6-11-64				1.35	0.90	2.65	0.05	0.20	2.70	0.29	1.72	0.37					
						4.8	1	4	51	5	33						
SANTA MARGARITA HYDRO UNIT																	
Z02H0																	
Z02H4																	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalent percent				parts per million reaction value				Mineral constituents in parts per million			
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silicate	Total hardness	T.D.S.	Evap (85°C)	Evap (105°C)
Date sampled				N g	N g	N a	K m	CO ₂	HCO ₃	SO ₄	Cl	NO ₃	F	B	S O ₂				
OAKGROVE HYDRO SUBUNIT	OAKGROVE HYDRO SUBAREA																		
95/ 2E-17K 1 S	7-16-64	74	7.9	6.65	3.29	1.23	2.39	0.05	0.2	0	220	93	40	12	0.02	0.07	--	410	226
OAKGROVE HYDRO SUBUNIT	OAKGROVE HYDRO SUBAREA																		
95/ 2E-17K 1 S	7-16-64	74	7.9	6.65	3.29	1.23	2.39	0.05	0.2	0	220	93	40	12	0.02	0.07	--	410	226
SANTA MARGARITA HYDRO UNIT																			
SANTA MARGARITA HYDRO UNIT																			
Z0210	Z0212																		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million								
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfate	Total hardness	TDS	
Date sampled				CO ₃	Na	K	HCO ₃	CO ₃	SO ₄	Cl	F	B	°F	°C	SO ₂	CaCO ₃		
RONSELL HYDRO SUBUNIT MISSION HYDRO SUBAREA																		
10S/ 4W-35N 1 S 10-15-63	--	7.5	930	55	26	98	8	0	202	32	179	7.5	0.15	25	638	244		
10S/ 4W-35P 1 S 10-15-63	--	7.9	980	39	2.14	4.26	0.20	3.31	0.67	5.05	5.1	0.12	0.15	25	530	147		
10S/ 4W-35R 3 S 10-15-63	70	7.0	1930	1.95	0.99	6.96	0.08	0	198	36	204	0	0.1	0.33	25	568	577	
11S/ 4W-2L 1 S 10-15-63	67	6.9	3550	1.30	11.60	15.22	0.10	3.25	0.75	5.75	5.9	0.11	0.21	20	1482	666		
11S/ 4W-3C 2 S 10-15-63	72	7.4	1920	227	3	200	7	0	220	331	378	5.3	0.02	0.21	20	1262	1257	
11S/ 4W-3H 3 S 10-15-63	67	7.4	2330	14.27	2.30	8.70	0.20	3.61	6.89	10.66	17	32	50	0.09	0.18	21	1438	579
11S/ 4W-3H 4 S 10-15-63	68	7.3	6250	381	198	850	15	0	360	209	1060	3.1	0.02	0.30	44	2614	2260	
11S/ 4W-4J 2 S 10-24-63	--	8.0	970	4.04	2.06	4.35	0.13	1.00	5.15	5.00	14.81	2.2	0.08	0.27	21	1136	829	
				38	19	41		34	1	21	20	59				1467		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER (1963/64)
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity				Mineral constituents in parts per million				
				Calcium C _a	Magnesium M _g	Sodium N _a	Sulfur S _u	Boron B	Chloride Cl	Nitrate NO ₃	Fluoride F	Silico-silicate SiO ₂
RONSALI HYDRO SUBUNIT MISSION HYDRO SUBAREA												
11S/ 4W- 4J 2 S 11-18-63	--	7.5	3300	234 11.668	126 10.36	380 43	8 0.20	0 4.38	267 6.16	296 26.59	7.0 0.11	0.04 0.18
11S/ 4W- 4M 1 S 10-11-63	--	8.2	1320	147 7.34	13 1.07	110 36	2 0.05	0 4.25	259 2.23	107 6.09	216 0.42	0.02 0.31
11S/ 4W- 4P 2 S 10-24-63	--	7.3	1650	208 10.38	11 0.90	120 5.22	3 0.08	0 3.36	205 2.36	138 2.87	308 8.69	0.02 1.32
11S/ 4W- 7L 1 S 11-18-63	68	8.0	1820	37 1.85	35 2.88	305 13.26	13 0.33	0 1.70	104 5.50	264 10.69	379 0.10	0.06 0.18
11S/ 4W- 7L 2 S 11-18-63	68	7.8	2420	133 6.64	91 7.48	290 12.61	10 0.26	0 0.26	292 4.79	398 8.29	482 13.59	0 0.04
11S/ 4W- 7N 1 S 10-11-63	70	7.2	1220	49 2.45	38 3.13	145 6.30	21 0.54	0 2.70	165 2.70	7 0.15	333 9.39	1.8 0.03
3- 7-64	68	7.3	1488	83 4.14	51 4.19	146 6.35	12 0.31	0 4.39	268 0.94	45 9.36	332 0.47	0.02 0.10
11S/ 4W- 8B 1 S 10-11-63	--	7.8	1330	103 5.14	31 2.55	140 6.09	6 0.15	0 4.64	283 4.44	158 3.29	206 5.81	1.8 0.03
SAN LUIS REY HYDRO UNIT												
Z03A1												
Z0300												

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents				parts per million equivalents per million percent reactivity				Mineral constituents in parts per million				Mineral constituents in parts per million			
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Boron	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfate	Chloride	Nitrate	Total Evap (OS°C)	Total hardness °C
Date sampled								HCO ₃	SO ₄	F	Na	K	CO ₃	NO ₃	Cl	Evap (OS°C)	Computed		
11S/ 4W- 8E 1 S	--	8.0	1650	18.7	24	134	7	0	292	17.9	314	0	0.1	0.12	25	1198	565		
10-25-63				9.33	1.97	5.83	0.18	4.79	3.73	8.85	-	-	-	-	-	1014			
11S/ 4W- 8N 2 S	--	7.7	2360	54	11	34	1	28	21	51	21	0	0.2	0.30	21	1582	619		
10-24-63				10.48	1.89	12.83	0.08	5.28	3.60	16.22	575	0	0.2	0.30	21	1459			
11S/ 4W- 9F 1 S	68	7.3	3700	30.7	9.6	389	7	0	467	327	901	0	0.2	0.39	28	2496	1162		
10-25-63				15.32	7.90	16.91	0.18	7.65	6.81	25.41	19	17	64	25.41	28	2285			
11S/ 4W- 9L 1 S	69	7.7	10600	56.7	4.13	2570	1	0	502	6791	771	0	1.0	1.95	7	11918	3115		
11-18-63				28.29	33.97	111.74	0.03	8.23	141.39	21.74	83	13	13	13	13	11370			
11S/ 4W- 9N 1 S	--	7.6	1400	7.9	21	217	2	0	334	19	312	9.1	0.8	0.39	22	872	284		
11-18-63				3.94	1.73	9.44	0.05	5.47	0.40	8.80	59	1	0.15	0.15	1	846			
11S/ 4W-18C 6 S	70	7.5	2650	26.6	29	275	9	0	318	372	514	0	0.1	0.27	17	1728	783		
10-11-63				13.27	2.38	11.96	0.23	5.21	7.75	14.49	19	28	53	14.49	17	1639			
11S/ 4W-18E 1 S	70	7.0	1240	4.0	1.9	207	1	0	89	114	303	7.5	0.1	0.12	2	878	178		
10-11-63				2.00	1.56	9.00	0.03	1.46	2.37	8.54	12	19	68	1	1	737			
11S/ 4W-18F 1 S	68	7.5	2660	132	132	277	10	0	354	473	505	2.5	0.4	0.26	23	1845	873		
3-13-64				6.59	10.86	12.04	0.26	5.80	9.85	14.24	19	33	48	14.24	23	1729			

TABLE E-I
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity value						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silicate	TDS	Total hardness as CaCO ₃
Date sampled				Mg	Mg	K	No	CO ₃	HCO ₃	SO ₄	Cl	F	8	Equiv 180°C	Equiv 105°C	Computed	
BONSALL HYDRO SUBUNIT MISSION HYDRO SUBAREA																	
115/ 5W-13L 1 S 10-10-63	--	7.6	3100	317 15.82 45	270 7.40 21	12 11.74 33	0 0.31 1	0 5.16 15	315 12.12 35	582 17.51 50	621 0	0.2 0.30	0.30	23	2430	1162	
3- 3-64	--	7.7	3135	294 14.67 41	240 10.44 29	10 0.26 1	0 1.39 16	344 5.64 16	547 11.39 32	665 18.75 52	1.2 0.02	0.4 0.12	0.12	29	2070	1257	
115/ 5W-13L 2 S 10-10-63	70	7.9	18000	1160 57.88	175 14.39	3200 139.14	20 0.51	0 1.56	95 43.26	2078 166.38	5900 0	0.2 0.2	0.76	3	2320	2083	
3- 2-64	64	7.3	17730	261 13.02	800 65.79	3050 132.61	18 0.46	0 1.33	81 42.81	2056 168.50	5975 0.10	0.6 0.10	0.96	3	13320	3616	
115/ 5W-13N 2 S 3-12-64	67	7.6	16667	32 1.60	40 3.29	236 10.26	13 0.33	0 2.04	173 4.00	192 8.74	310 0.10	0.3 1	0.16	--	933	245	
115/ 5W-13N 3 S 11-1-8-63	--	8.0	7000	212 10.58	162 13.32	1227 53.35	2 0.05	0 2.02	123 1.10	53 73.26	2598 0	0.2 0.2	0.22	1	914	4316	
115/ 5W-13P 1 S 10-10-63	70	6.6	15200	389 19.41	361 29.69	2750 119.57	33 0.84	0 0.82	50 6.33	304 159.89	5670 0	0.1 0.1	0.40	3	11480	2457	
115/ 5W-13P 2 S 3-12-64	68	7.1	15460	326 16.27	410 33.72	2630 114.35	47 1.20	0 0.70	43 6.58	316 158.63	5625 0.34	0.6 0.70	1.00	--	9535	2501	
																9398	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp. when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				Mineral constituents in								
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Nitrate	Fluoride	Boron	Sulfur dioxide	Total hardness	
Date sampled				M g	M g	N a	K	C O ₃	H C O ₃	S O ₄	N O ₃	F	B	S i- C l	S i- O ₂	Calculated C o C O ₃
BONSALL HYDRO SUBUNIT																
MISSION HYDRO SUBAREA																
11S / 5W-130 3 S 10- 9-63	70	7.7	11400	69.3 34.58	29.4 24.18	1650 71.74	23 0.59	0	24.7 4.05	55.4 11.53	4028 113.59	0	0.15 0.22	22	8840 7386	2940 2977
3- 2-64	--	7.0	10893	67.0 33.43	31.7 26.07	1440 62.61	22 0.56	0	25.6 4.20	53.5 11.14	3800 107.16	5.0 0.08	0.22 0.22	26	8000	2977
11S / 5W-23E 1 S 11-18-63	--	6.5	15300	40.5 20.21	46.1 37.91	3300 14.348	6 0.15	0	24 0.39	32.0 6.66	6852 19.23	0	0.2 0.56	18	6941 12464	2908 2940
3-12-64	6.7	5.6	19920	38.7 19.31	59.3 48.77	3405 14.805	74 1.89	0	10 0.16	61.0 12.70	7228 203.83	0	0.7 0.66	1	11375 14270	3407 3404
11S / 5W-24B 2 S 10-10-63	70	7.9	1820	74 3.69	37 3.04	270 11.74	10 0.26	0	85 1.39	120 2.50	518 14.61	0	0.1 0.18	3	1172 1074	337 1074
3-13-64	6.8	7.7	2695	12.6 6.29	104 8.55	292 12.70	11 0.28	0	17.1 2.40	27.0 5.62	690 19.46	2.5 0.04	0.2 0.16	6	1740 1586	743 1586
BONSALL HYDRO SUBAREA																
10S / 1W-30P 1 S 3-17-64	72	7.2	1185	9.1 4.54	4.6 3.78	83 3.61	5 0.13	0	24.0 3.93	4.7 0.98	228 6.43	30 0.48	0.4 0.48	4.9	824 697	416 697

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per thousand reactivity				Mineral constituents in parts per million				Mineral constituents in parts per million						
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Mineral constituents in parts per million			
Date sampled				CO ₃	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	TDS at 80°C	Total hardness as CaCO ₃		
BONSALL HYDRO SUBUNIT																		
BONSALL HYDRO SUBAREA																		
10S / 2W-22N 1 S	--	7.3	1135	7.7	3.84	4.4	9.8	0	281	82	180	24	0.5	0.09	39	740	373	
6-17-64				3.32	3.62	4.26	0.10	1.71	5.08	0.39								
10S / 3W-3M 1 S	--	7.2	835	5.0	2.50	3.04	7.4	1	39	15	43	3						
6-17-64				-28	-28	3.22	0.03	4.47	1.27	2.90	0.23							
10S / 3W-11G 1 S	66	8.0	1140	5.1	5.59	4.19	9.8	7	0	248	153	6.7	0.2	0.15	28	920	489	
10-25-63				39	39	4.26	0.18	4.06	5.89	4.31	0.11							
10S / 3W-12C 1 S	--	7.5	1480	6.8	6.09	5.59	13.0	8	0	322	346	190	0	0.2	0.18	29	1130	584
10-25-63				35	35	5.65	0.20	5.28	7.20	5.36	0.30							
10S / 3W-16F 8 S	66	7.2	2200	15.8	12.99	6.96	0.18	0	177	1124	191	3.6	0.2	0.25	31	2162	1244	
10-25-63				37	41	2.22	1	2.90	23.40	5.39	17							
10S / 3W-20P 3 S	--	7.5	2150	24.9	4.1	3.00	4	0	491	532	363	0	0.4	0.20	28	1820	791	
10-25-63				43	12.43	3.37	13.04	0.10	8.05	11.08	10.24							
10S / 4W-1R 1 S	--	7.2	1037	5.9	5.1	9.0	4	0	159	209	131	20	0.3	0.08	55	780	357	
6-17-64				2.94	4.19	3.91	0.10	2.61	4.35	3.69	0.32	3						
				26	38	35	1	24	40	34								

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	Specific conductance (micro-mhos at 25°C)	pH	Mineral constituents in parts per million equivalents per million percent reactivity						Mineral constituents in parts per million								
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	TDS	Total hardness	
Date sampled	Na	Mg	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	Si	SiO ₂	SiO ₂	SiO ₂	SiO ₂	Calculated	Caco ₃
BONSALL HYDRO SUBUNIT CENTER HYDRO SUBAREA Z03A0																		
115/ 1W-7L 1 S 6-17-64	72	8.2	450	1.35	0.82	2.57	0.05	0	191	16	4.0	10	0.02	0.07	--	296	109	
				28	17	54	1		3.13	0.33	1.13	0.16						
									66	66	24	3						
115/ 1W-7P 1 S 6-17-64	70	7.4	585	1.90	1.64	2.35	0.08	0	205	40	53	20	0.2	0.10	--	258	177	
				32	27	39	1		3.36	0.83	1.49	0.32						
									56	14	25	5						
115/ 2W-13R 1 S 6-17-64	--	7.5	1451	84	60	140	2	0	388	75	246	36	0.05	0.04	4.3	920	456	
				4.19	4.93	6.09	0.05		6.36	1.56	6.94	0.58						
				27	32	40			41	10	45	4						
WOODS HYDRO SUBAREA Z03A5																		
115/ 1W-22F 1 S 6-17-64	66	8.1	730	4.1	25	74	2	--	239	43	73	31	0.02	0.10	--	438	206	
				2.05	2.06	3.22	0.05		3.92	0.90	2.06	7						
									53	12	28							
115/ 1W-22E 2 S 6-17-64	70	8.3	600	3.3	19	67	2	5	220	33	53	21	0.02	0.10	--	354	161	
				1.65	1.56	2.91	0.05	0.17	3.61	0.69	1.49	0.34						
				27	25	47	1	3	57	11	24	5						
RINCON HYDRO SUBAREA Z03A6																		
115/ 1W-16B 2 S 6-17-64	70	7.9	495	3.3	12	56	2	0	189	17	4.9	18	0.02	0.10	--	310	132	
				1.65	0.99	2.43	0.05		3.10	0.35	1.38	6						
					32	19	47		61	7	27							

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million reactance				Mineral constituents in parts per million						
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Barium	Sulfur	Total hardness as CaCO ₃		
Date sampled				No.	Mg	No.	K	CO ₃	HCO ₃	SO ₄	Cl	F	θ	SiO ₂	Calcd 105°C			
MONSFRATE HYDRO SUBUNIT PALA HYDRO SUBAREA																		
95/ 2W-230 1 S 6-12-64	74	8.2	650	43	29	56	3	0	264	29	66	3.2	0.1	0.29	--	404	227	
95/ 2W-26H 1 S 6-12-64	72	8.2	635	48	31	2.38	0.08	0.60	4.33	0.05	1.36	0.05	1	--	359	392	231	
95/ 2W-26P 1 S 10-25-63	--	8.0	720	34	32	2.22	0.10	0.10	2.26	0.13	1.25	1.58	0.06	--	375	522	280	
95/ 2W-310 1 S 10-25-63	70	7.7	1410	51	20	1.56	0.13	0.13	2.26	0.19	1.20	1.49	0	0.08	32	498	576	
PAUMA HYDRO SUBAREA																		
105/ 1E-9K 1 S 6-11-64	60	7.4	145	14	1.16	0.16	0.52	0.05	0.90	0.42	0.17	0	0.1	0.02	--	112	43	
105/ 1W-16H 1 S 11-21-63	--	7.8	445	45	13	4.07	1.74	0.08	3.00	1.15	1.10	0.06	0.05	30	302	83	166	
105/ 1W-22P 1 S 11-21-63	--	7.7	520	45	17	50	3	0.08	2.17	0.08	2.06	5.8	0.2	0.09	27	319	348	183
SANTO DOMINGO HYDRO UNIT PALA HYDRO SUBAREA																		
105/ 1W-22P 1 S 11-21-63	--	7.7	520	2.25	1.40	2.17	0.08	3.77	24	1	3.38	1.21	1.16	0.09	2	348	348	
SAN LUIS KEY HYDRO UNIT Z0300																		
95/ 2W-310 1 S 10-25-63	70	7.7	1410	51	20	1.56	0.13	0.08	4.13	0.19	1.20	1.49	0.19	0.23	35	1056	895	
Z03B1																		
95/ 2W-310 1 S 10-25-63	70	7.7	1410	51	20	1.56	0.13	0.08	4.13	0.19	1.20	1.49	0.19	0.23	35	1056	895	
Z03B2																		
95/ 2W-310 1 S 10-25-63	70	7.7	1410	51	20	1.56	0.13	0.08	4.13	0.19	1.20	1.49	0.19	0.23	35	1056	895	
Z0300																		
95/ 2W-310 1 S 10-25-63	70	7.7	1410	51	20	1.56	0.13	0.08	4.13	0.19	1.20	1.49	0.19	0.23	35	1056	895	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalent percent reaction value				Mineral constituents in parts per million										
				Coliform	Magnesium	Sodium	Potassium	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Total hardness °C			
Date sampled				C. o.	M g	N a	K	CO ₃	HCO ₃	SO ₄	SiO ₂	B	SiO ₂	Evol 80°C	Evol 105°C			
WARNER HYDRO SURUNIT																		
10S/ 3E-25DS1	5	129	9.4	420	5	1	99	2	39	43	45	4.7	0	8.0	0.71	6.2	37.2	1.7
11-20-63				0.25	0.08	4.30	0.05	1.30	0.70	0.94	1.33						33.0	
10S/ 3E-26L	1 S	--	7.9	400	1.60	0.82	54	3	0	216	7	27	11	0.2	0.11	20	268	121
11-20-63				33	17	2.35	0.08	2	3.54	0.15	0.76	0.18						
11S/ 3E-3N	1 S	--	7.6	265	22	4	30	1	0	121	12	14	3.6	0.4	0.06	22	271	
11-20-63				1.10	0.33	1.30	0.03	0.03	1.98	0.25	0.39	0.06						
11S/ 3E-18P	1 S	--	7.4	280	24	7	30	3	0	120	6	22	20	0.1	0.06	38	210	89
11-20-63				1.20	0.58	1.30	0.08	0.08	1.97	0.12	0.62	0.32						
11S/ 4E-150	1 S	70	8.2	670	51	14	79	2	0	221	83	63	0	0.6	0.07	--	418	185
6-16-64				2.54	1.15	3.43	0.05	0.05	3.62	1.73	1.78							
11S/ 5E-18P	1 S	66	8.1	645	50	12	80	2	0	264	20	72	15	0.2	0.07	--	390	175
6-16-64				2.50	0.99	3.48	0.05	0.05	4.33	0.42	2.03	0.24					38.1	
				36	14	50	1	1	62	29	6							

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reacance value						Mineral constituents in parts per million						
				Magnesium	Sodium	Potassium	Calcium	Boron	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfate	Total Evap. 80°C as CaCO ₃	
Date sampled	No.	Mg q	Na	K	CO ₃	HCO ₃	SO ₄	Cl	B	NO ₃	SO ₂	Calcd				
VISTA HYDRO SUBUNIT CARLSBAD HYDRO SUBAREA	Z04B0	Z04B1	CARLSBAD HYDRO UNIT	Z0400												
11S/ 4W-25E 1 S 10-29-63	--	7.5	1550	4.04 25	6.09 37	0.13 38	143 6.22	5 0.13	0	270 4.43	178 3.71	27 7.67	0.17 0.44	32 3	1042 4.2	507 945
11S/ 4W-27M 1 S 6-18-64	--	8.0	3436	11.58 33	18.26 15	0.03 52	420 18.26	1 0.03	0	376 6.16	103 2.14	27 7.4	0.17 0.12	32 6	2710 76	851 2007
11S/ 4W-33F 1 S 10-29-63	--	7.9	2080	109	52	0.05	280 4.28	2 12.17	0	256 4.20	106 2.21	541 15.26	0 0.02	18 0.67	1336 18	486 1235
11S/ 4W-33G 1 S 10-29-63	--	8.1	1460	60	44	0.10	195 8.48	4 0.10	0	189 3.10	77 1.60	362 10.21	0.4 0.04	23 0.38	916 23	331 861
6-18-64	--	8.1	1513	65	43	0.08	185 3.54	3 0.08	0	207 3.39	69 1.44	357 10.07	0.6 0.04	43 6.7	950 10	339 870
VISTA HYDRO SUBAREA	Z04B2	Z04B2														
11S/ 3W-17L 1 S 6-18-64	68	7.0	2183	139 6.94	135 46	0.08 24	11.10 11.10	3 0.08	0	339 5.56	247 5.14	416 11.73	0.4 1.44	70 6	1690 1401	
11S/ 3W-19M 1 S 10-29-63	69	7.4	2180	153 7.63	110 9.05	1.77 7.70	1 0.03	0	436 7.15	249 5.18	423 11.93	0.1 0.32	43 1	1546 1391		

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfur dioxide	Total hardness	Total Evap 18°C
Date sampled				Mg	Na	K	HCO ₃	CO ₃	SO ₄	Cl	F	B	S _o 2				CaCO ₃ Computed
CARLSBAD HYDRO UNIT																	
AGUA HEDIONDA HYDRO SUBUNIT																	
AGUA HEDIONDA HYDRO SUBAREA																	
12S/ 4W-3R 1 S	--	6.4	1630	55	3.13	10.44	0.51	0	17	1.25	4.87	0	0.2	0.43	--	1080	294
6-20-64				2.74	16	62	3	2	2.60	13.73							
12S/ 4W-9G 1 S	--	7.8	3058	142	82	390	3	0	3.95	2.49	680	2.5	0.7	0.58	35	974	692
6-17-64				7.09	6.74	16.96	0.08	22	6.47	5.18	19.18	0.04					
12S/ 4W-10D 1 S	6.8	7.9	2950	196	68	390	6	0	21	1.7	62						
6-17-64				9.78	5.59	16.96	0.15	30	4.32	2.48	684	4.2	0.2	0.60	--		
12S/ 4W-10E 1 S	--	8.3	1808	107	4.9	200	4	7	2.88	5.08	19.29	0.68					
6-10-64				5.34	4.03	8.70	0.10	29	0.23	4.72	1.37	11.84	0.08				
12S/ 4W-10H 3 S	--	7.3	2430	177	83	290	3	0	26	1.2	65	6.40	4.9	0.8	0.28	21	1160
10-29-63				8.83	6.83	12.61	0.08	31	4.4	2.1	1.1	1.872					
12S/ 4W-10J 1 S	--	7.9	1825	92	55	225	2	0	260	1.13	4.33	0	0.2	0.45	22	1122	456
10-29-63				4.59	4.52	9.78	0.05	24	5.2	4.26	2.35	12.21					
12S/ 4W-11E 1 S	7.0	8.3	1650	64	56	220	5	5	23	1.2	65						
6-18-64				3.19	4.61	9.19	0.13	18	55	0.17	5.34	1.02	10.69	0	0.38	--	
12S/ 4W-11P 1 S	6.9	7.6	1730	78	62	200	3	0	276	6.2	4.24	0	0.4	0.31	--	1072	450
6-10-64				3.89	5.10	8.70	0.08	22	49	4.52	1.29	11.96	0.7				

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity value				Mineral constituents in parts per million									
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfuric acid	T.D.S. Evap 80°C Computed	T.D.S. Evap 105°C as CaCO ₃
Date sampled				CO ₃	Mg	Na	K	HCO ₃	CO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂		
AGUA HEDIONDA HYDRO SUBUNIT Z04C0																	
AGUA HEDIONDA HYDRO SUBAREA Z04C1																	
125/ 4W-15M 1 S 6-19-64	65	7.0	2754	1.76	9.9	294	1.3	0	54	802	4.24	5	2.1	1.50	--	1990	847
				8.78	8.14	12.78	0.33	43	0.89	16.70	11.96	0.08					1843
				29	27		1		3	56	40						
CARLSBAD HYDRO UNIT Z0400																	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in						Mineral constituents in							
				Calcium	Magnesium	Sodium	Potassium	Sodium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fuoride	Boron	Silicate	TDS
Date sampled				Na	Mg	K	HCO ₃	CO ₃	SO ₄	Cl	NO ₃	F	B	5.02	Evap 105°C	Total hardness as CaCO ₃	
ENCINAS HYDRO SUBUNIT																	
125 / 4W-26H 1 S 10-30-63	76	8.2	1400	46	30	215	2	0	221	92	297	0	0.6	0.33	26	788	239
				2.30	2.47	9.35	0.05		3.62	1.92	8.38					818	
				16	17	66			26	14	60						
125 / 4W-280 1 S 6-18-64	70	7.9	1900	10	1	4.30	2	0	102	24	606	0	0.2	0.88	--	1228	29
				0.50	0.08	18.70	0.05		1.67	0.50	17.09						
				3	97				9	3	89						
CARLSBAD HYDRO UNIT																	
Z0400																	
125 / 4W-26H 1 S 10-30-63	76	8.2	1400	46	30	215	2	0	221	92	297	0	0.6	0.33	26	788	239
				2.30	2.47	9.35	0.05		3.62	1.92	8.38					818	
				16	17	66			26	14	60						
125 / 4W-280 1 S 6-18-64	70	7.9	1900	10	1	4.30	2	0	102	24	606	0	0.2	0.88	--	1228	29
				0.50	0.08	18.70	0.05		1.67	0.50	17.09						
				3	97				9	3	89						
Z0400																	
125 / 4W-26H 1 S 10-30-63	76	8.2	1400	46	30	215	2	0	221	92	297	0	0.6	0.33	26	788	239
				2.30	2.47	9.35	0.05		3.62	1.92	8.38					818	
				16	17	66			26	14	60						
125 / 4W-280 1 S 6-18-64	70	7.9	1900	10	1	4.30	2	0	102	24	606	0	0.2	0.88	--	1228	29
				0.50	0.08	18.70	0.05		1.67	0.50	17.09						
				3	97				9	3	89						

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million						
			Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silicate	TDS
Date sampled	No.	Mg Mg	No.	K	CO ₃	HCO ₃	SO ₄	Cl	F	B	SiO ₂	Evap 80°C	Evap 65°C	Computed	
CARLSBAD HYDRO UNIT															
SAN MARCOS HYDRO SUBUNIT	Z04E0	Z04E1	Z04E0	Z04E1											
BATIQUITOS HYDRO SUBAREA															
13S/ 4W- 2Q 1 S 6-18-64	--	6.9	1513	85	58	151	3	0	83	341	235	0.04	0.020	37	1090
		4.024		4.077	6.057	0.008	1	1.036	7.010	6.63	0.42				451
		27		30	42			9	46	43	3				
TWIN OAKS HYDRO SUBAREA		Z04E3													
11S/ 3W-25N 2 S 6-18-64	6.8	7.0	1320	82	69	85	3	0	259	6.4	271	0.03	0.009	6.3	980
		4.009		5.067	3.070	0.008	1	4.025	1.033	7.064	0.65				488
		30		42	27			31	10	55	5				805

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity						Mineral constituents in parts per million								
				Calcium C o	Magnesium M g	Sodium N a	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica S O ₂	Total hardness as CaCO ₃		
ESCONDIDO HYDRO SUBUNIT SAN ELIJAH HYDRO SUBAREA																		
12S/ 2W-14F 1 S 11- 8-63	--	7.5	940	46	33	104	4	0	182	63	177	19	0.02	0.13	45	658		
13S/ 3W- 9E 1 S 12-19-63	--	8.3	1020	2.30	2.71	4.52	0.10	2.98	1.31	4.99	0.31	3	52	0.02	0.20	22	581	
13S/ 4W-23H 1 S 6-26-64	--	7.0	2700	45	48	117	1	4	342	89	59	120	0.02	0.20	22	692		
13S/ 4W-24P 1 S 3-10-64	72	7.7	2213	2.25	3.95	5.09	0.03	0.13	5.61	1.85	1.66	1.94	15	17	0.02	0.20	22	310
13S/ 4W-25J 1 S 12-18-63	--	8.0	3450	3.54	0.16	16.22	0.15	1	50	0	205	395	613	7	0.08	0.43	--	674
ESCONDIDO HYDRO SUBUNIT ESCONDIDO HYDRO SUBAREA																		
12S/ 2W-2K 1 S 11- 8-63	--	7.6	2200	1.59	1.09	218	5	0	275	499	373	66	0.04	0.21	44	1808		
12S/ 2W- 4P 3 S 11- 8-63	--	7.2	1470	96	4.1	137	5	0	220	110	259	53	0.02	0.18	34	1609		
				4.79	3.37	5.96	0.13	4.2	3.61	2.29	7.30	0.85	26	16	52	964		
				9.48	3.4	3.6									843			

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity				Mineral constituents in parts per million				CARLSBAD HYDRO UNIT					
				Calcium Co.	Magnesium Mg	Sodium Na	Potassium K	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F					
ESCONDIDO HYDRO SUBUNIT																	
ESCONDIDO HYDRO SUBAREA																	
125/ 2W-9C 3 S	--	7•2	940	76	22	100	4	0	182	7•8	0•2	0•18	16	680	280		
11- 8-63				3•79	1•81	4•35	0•10		2•98	3•30	0•13			606			
				3•38	18	43	1		3•30	33							
125/ 2W-12E 1 S	--	7•6	1970	106	97	220	5	0	272	288	0•2	0•23	4•7	1598	664		
11- 8-63				5•29	7•98	9•57	0•13		3•72	5•66	8•12	5•16					
				23	35	42	1		16	25	36	23					
125/ 2W-12E 2 S	--	7•6	1300	54	45	165	1	0	284	224	0•1	0•19	31	1467	320		
11- 8-63				2•69	3•70	7•17	0•03		4•65	1•81	6•32	0•61					
				20	27	53			35	14	4•7	5					
125/ 2W-17H 1 S	81	7•4	1670	87	75	165	6	0	224	317	0•2	0•08	--	858	320		
6-24-64				4•34	6•17	7•17	0•15		3•67	6•60	5•10	2•79					
				24	35	40	1		20	36	28	15					
125/ 2W-20G 2 S	--	7•1	8000	677	456	670	14	0	556	303	9•3	0•1	0•20	15	6934	3567	
11- 8-63				33•78	37•50	29•13	0•36		9•11	6•31	85•11	0•15					
				34	37	29			9	6	85						
125/ 2W-20K 1 S	--	7•2	7400	593	404	605	12	0	580	231	2681	5•1	0•1	5•00	33	5436	
11- 8-63				29•59	33•22	26•31	0•31		9•51	4•81	75•60	0•08					
				33	37	29			11	5	84						
125/ 2W-20K 4 S	--	6•8	1330	93	56	97	4	0	79	102	286	116	0•2	0•27	40	4980	3143
11- 8-63				4•64	4•61	4•27	0•10		1•29	2•12	8•07	1•87					
				34	34	31	1		10	16	60	14					
125/ 2W-21D 2 S	--	7•8	2000	70	57	330	2	0	443	238	334	24	0•6	0•40	31	1042	463
11- 8-63				3•49	4•69	14•35	0•05		7•26	4•96	9•42	0•39	2				
				15	21	64			33	23	43						

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million						
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfate	Total hardness as CaCO ₃
Date sampled	Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	Evap 180°C	Evap 105°C		
ESCONDIDO HYDRO SUBUNIT LAKE WOHLFORD HYDRO SUBAREA																
11S/ 1W-27F 1 S 6-17-64	65	7.8	570	1.90	1.48	18	59	1	0	188	38	72	6	0.02	0.05	--
				3.32	2.5	2.57	43	0.03	3.08	0.79	2.03	0.10	2			358 169
11S/ 1W-34G 1 S 6-17-64	64	8.0	440	1.25	0.82	10	57	1	0	129	25	51	23	0.04	0.05	--
				2.7	1.8	2.48	54	0.03	2.11	0.52	1.44	0.37	32			325
																282 104
CARLSBAD HYDRO UNIT																
																256
Z04F0																
Z04F3																

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents				parts per million equivalents per cent reaaction				Mineral constituents in parts per million						
				Ca	Mg	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	TDS		
SAN DIEGUITO HYDRO SUBUNIT																		
SAN DIEGUITO HYDRO SUBAREA				205A1	205A2	205A3	205A4	205A5	205A6	205A7	205A8	205A9	205A10	205A11	205A12	205A13		
13S/ 3W-33M 1 S 3- 6-64	67	7.8	3514	1.8	0.90	0.74	5.74	1.82	71	0	1830	1	184	3.1	0.4	0.20		
14S/ 3W-7C 2 S 3-11-64	64	7.8	11100	2.94	298	1918	4.3	0	782	788	3320	9.3	1.0	1.40	--	1319		
14S/ 3W-7C 3 S 10-30-63	--	8.4	4800	8.6	6.2	1000	26	12	417	520	1223	5.7	0.8	1.14	28	7501 1961		
14S/ 3W-7C 6 S 3- 6-64	68	6.6	25400	4.29	5.10	43.48	0.66	0.40	6.83	10.83	34.49	0.09	0.09	0.09	0.09	7057		
14S/ 3W-7E 2 S 10- 9-63	69	7.4	7800	2.37	192	1400	30	1	1	13	21	66	27	1.6	3.40	3074 470		
3- 9-64	65	7.5	6494	212	163	1055	20	0	278	2734	9600	270.72	0.44	0.44	0.44	3170		
14S/ 3W-7L 1 S 3-11-64	--	7.6	2370	1.43	54	247	8	0	174	115	608	17.15	0.04	0.04	0.04	19080 3237		
14S/ 3W-7L 5 S 3- 6-64	--	7.1	2827	3.04	68	234	7	0	307	567	485	11.80	13.68	0.04	0.04	19871		
				15.17	5.59	10.17	0.18	33	1	13	11	76	39	45	4540 1200			
				4.9	18											4169		
																5266		
																1326		
																1264		
																1039		
																1819		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (2)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reactivity value				Mineral constituents in parts per million					
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica		
Date sampled	Na	K	Na	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	mg/l	Evad (0.5°C)	Computed	CaCO ₃		
SAN DIEGUITO HYDRO SUBUNIT Z05A1																	
14S/ 4W-1R 4 S 10- 8-63	--	7.4	4700	329	36	800	22	0	144	863	1202	0	1.2	2.28	18	3190	970
				16.42	2.96	34.78	0.56	1	2.36	17.97	33.90					3344	
				30	5	64	1		4	33	63						
14S/ 4W-12H 1 S 10- 8-63	--	7.0	27000	367	60	6660	138	0	795	2846	8918	0	0.4	5.50	17	20220	1163
				18.31	4.93	289.58	3.53	2	13.03	59.25	251.49						
				6	2	92	1		4	18	78						
14S/ 4W-12L 1 S 8-13-54	70	7.4	3759	98	32	740	32	0	364	180	1063	16.4	1.06	1.02	--	19403	376
				4.89	2.63	32.18	0.82	6	5.97	3.75	29.98	0.26	1				
				12	79	2			15	75	9					2335	
SAN DIEGUITO HYDRO UNIT Z0500																2343	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in						Mineral constituents in					
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfate
Date sampled	in°F		Mg N g	N a	K	CO ₃	HCO ₃	SO ₄	Cl	F	B	SO ₄	Evap 0.5°C	Calculated Co ₃ O ₄	
SAN PASQUAL HYDRO SUBUNIT SAN PASQUAL HYDRO SUBAREA															
205C2															
125/ 1W-31H 1 S 11-19-63	--	7.7	1310	103 5.14	44 3.62	158 23	2 0.05	0	385 6.31	82 1.71	260 7.33	3.4 0.05	0.14	3.6	862
125/ 1W-32B 1 S 11-19-63	--	7.4	770	44 2.20	18 1.48	104 55	2 0.05	0	196 3.21	38 0.79	132 3.72	0.4 0.34	0.16	3.9	878
125/ 1W-32E 1 S 11-19-63	--	7.9	1340	85 4.24	49 27	175 7.61	2 0.05	0	375 6.15	79 1.64	21 4.6	21 5.0	0.12	3.8	296
125/ 1W-34P 1 S 11-19-63	68	7.7	800	54 2.69	45 3.70	87 3.78	2 0.05	0	328 5.38	97 2.02	95 2.68	5.8 0.09	0.11	3.6	495
SAN DIEGUITO HYDRO UNIT															
205C2															
125/ 1W-31H 1 S 11-19-63	--	7.7	1310	103 5.14	44 3.3	158 44	2 0.05	0	385 4.1	82 11	260 48	3.4 0.05	0.14	3.6	862
125/ 1W-32B 1 S 11-19-63	--	7.4	770	44 2.20	18 27	104 55	2 0.05	0	196 4.0	38 10	132 40	0.4 0.34	0.16	3.9	878
125/ 1W-32E 1 S 11-19-63	--	7.9	1340	85 4.24	49 27	175 7.61	2 0.05	0	375 6.15	79 1.64	21 38	21 5.0	0.12	3.8	296
125/ 1W-34P 1 S 11-19-63	68	7.7	800	54 2.69	45 3.6	87 3.7	2 0.05	0	328 5.3	97 2.0	95 2.6	5.8 0.09	0.11	3.6	495
20500															
Z0500															
125/ 1W-31H 1 S 11-19-63	--	7.7	1310	103 5.14	44 3.3	158 44	2 0.05	0	385 4.1	82 11	260 48	3.4 0.05	0.14	3.6	862
125/ 1W-32B 1 S 11-19-63	--	7.4	770	44 2.20	18 27	104 55	2 0.05	0	196 4.0	38 10	132 40	0.4 0.34	0.16	3.9	878
125/ 1W-32E 1 S 11-19-63	--	7.9	1340	85 4.24	49 27	175 7.61	2 0.05	0	375 6.15	79 1.64	21 38	21 5.0	0.12	3.8	296
125/ 1W-34P 1 S 11-19-63	68	7.7	800	54 2.69	45 3.6	87 3.7	2 0.05	0	328 5.3	97 2.0	95 2.6	5.8 0.09	0.11	3.6	495

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Mineral constituents in parts per million equivalents per cent reacione						Mineral constituents in parts per million							
			Specific conductance (micro-mhos at 25°C)	Calcium C o	Magnesium M g	Sodium N a	Potassium K	Carbonate C O ₃	Bicarbonate H C O ₃	Sulfate S O ₄	Chloride C l	Nitrate N O ₃	Fluoride F	Boron B	Silica S i O ₂	TDS Total dissolved solids at 105°C
SANTA MARIA VALLEY HYDRO SUBUNIT 20500																
13S/ 1E-11M 1 S 11-20-63	--	7.7	930	4.7 2.35	1.97 2.2	24 6.22	0.05 59	0 4.7	0 4.85	296 0.77	37 4.62	164 0.13	8.0 0.1	0.16 45	562	216
13S/ 1E-15M 1 S 11-20-63	--	7.9	1840	105 5.24	105 4.52	288 12.52	3 0.08	0 0.23	563 9.23	167 3.48	348 9.81	8.4 0.14	0.16 1	35	1238	488
13S/ 1E-17J 2 S 11-20-63	--	7.7	900	64 3.19	36 2.96	105 4.57	5 0.13	0 2.25	137 21	294 6.12	92 2.59	0 0.2	0.09 24	7	1287	308
SAN DIEGUITO HYDRO UNIT 20500																
RAMONA HYDRO SUBAREA 205D1																
13S/ 1E-17M 1 S 11-20-63	--	7.7	930	4.7 2.35	1.97 2.2	24 6.22	0.05 59	0 4.7	0 4.85	296 0.77	37 4.62	164 0.13	8.0 0.1	0.16 45	562	216
13S/ 1E-17J 2 S 11-20-63	--	7.7	900	64 3.19	36 2.96	105 4.57	5 0.13	0 2.25	137 21	294 6.12	92 2.59	0 0.2	0.09 24	7	1287	308
EAST SANTA TERESA HYDRO SUBAREA 205D6																
12S/ 2E-33P 1 S 6-16-64	75	8.1	295	24 1.20	10 0.82	22 0.96	4 0.10	0 3	135 2.21	14 0.29	20 0.56	3.6 0.06	0.02 2	--	176	101
13S/ 2E-4H 1 S 6-16-64	73	7.7	390	26 1.30	18 1.48	27 1.17	2 0.05	0 1	156 2.56	16 0.33	27 0.76	18 0.29	0.02 19	--	164	139
WEST SANTA TERESA HYDRO SUBAREA 205D7																
12S/ 2E-33P 1 S 6-16-64	75	8.1	295	24 1.20	10 0.82	22 0.96	4 0.10	0 3	135 2.21	14 0.29	20 0.56	3.6 0.06	0.02 2	--	176	101
13S/ 2E-4H 1 S 6-16-64	73	7.7	390	26 1.30	18 1.48	27 1.17	2 0.05	0 1	156 2.56	16 0.33	27 0.76	18 0.29	0.02 19	--	164	139

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in						Mineral constituents in								
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfur dioxide	T.D.S.	Total Evap. 10°C	Total hardness CaCO ₃
Date sampled	in°F																	
SANTA YSABEL HYDRO SUBUNIT																		
11S/ 2E-35B 1 S	10-13-63	--	7.4	4.35	4.9	1.6	1.9	0	224	22	0	0.2	0.03	36	290	189		
PAMO HYDRO SUBAREA																		
11S/ 2E-35B 1 S	10-13-63	--	7.4	4.35	2.45	1.32	0.83	0.15	3	3.67	0.46	0.45	0.10					
SUTHERLAND HYDRO SUBAREA																		
12S/ 3E-31N 1 S	6-16-64	70	7.7	755	61	30	48	0	130	70	99	72	0.2	0.05	--	478	276	
					3.04	2.47	2.09	0.10	2.13	1.67	2.79	1.16	2.2	36	15		458	
SAN DIEGUITO HYDRO UNIT																		
Z05E0																		
11S/ 2E-35B 1 S	10-13-63	--	7.4	4.35	2.45	1.32	0.83	0.15	3	3.67	0.46	0.45	0.10					
Z05E2																		
11S/ 2E-35B 1 S	10-13-63	--	7.4	4.35	2.45	1.32	0.83	0.15	3	3.67	0.46	0.45	0.10					
Z05E3																		
12S/ 3E-31N 1 S	6-16-64	70	7.7	755	61	30	48	0	130	70	99	72	0.2	0.05	--	478	276	
					3.04	2.47	2.09	0.10	2.13	1.67	2.79	1.16	2.2	36	15		458	
Z0500																		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (2)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents in percent reaction						Mineral constituents in parts per million							
				Magnesium	Calcium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	TDS	Total Hardness
Date sampled				M g	N a	K	HCO ₃	CO ₃	SO ₄	Cl	B	F	SiO ₂	Equiv 80°C	Equiv 105°C	Computed CaCO ₃	
SOLEDAD HYDRO SUBUNIT																	
14S/ 3W-17L 2 S 12- 4-63	--	7.6	2857	302 15.07	60 4.93	260 11.30	6 0.15	0	351 5.75	600 12.49	468 13.20	2.5 0.04	0.8	0.24	34	1940	1001
14S/ 3W-190 1 S 10-30-63	--	7.8	1230	77 3.84	41 3.37	165 7.17	4 0.10	0	312 5.11	160 3.33	202 5.70	2.7 0.04	0.6	0.26	23	1906	361
14S/ 3W-20L 2 S 10-30-63	--	7.5	1200	84 4.19	37 3.04	145 6.30	2 0.05	0	255 4.18	182 3.79	191 5.39	0 40	0.6 0.21	0.21	21	860	829
15S/ 3W- 3N 2 S 10-30-63	--	8.5	935	55 2.74	43 3.54	99 4.30	4 0.10	7	136 0.23	281 2.23	90 2.54	0 21	0 54	0.14	9	704	314
PENASQUITO HYDRO UNIT																	
Z066AO																	
14S/ 3W-17L 2 S 12- 4-63	--	7.6	2857	302 15.07	60 4.93	260 11.30	6 0.15	0	351 5.75	600 12.49	468 13.20	2.5 0.04	0.8	0.24	34	1940	1001
14S/ 3W-190 1 S 10-30-63	--	7.8	1230	77 3.84	41 3.37	165 7.17	4 0.10	0	312 5.11	160 3.33	202 5.70	2.7 0.04	0.6	0.26	23	1906	361
14S/ 3W-20L 2 S 10-30-63	--	7.5	1200	84 4.19	37 3.04	145 6.30	2 0.05	0	255 4.18	182 3.79	191 5.39	0 40	0.6 0.21	0.21	21	860	829
15S/ 3W- 3N 2 S 10-30-63	--	8.5	935	55 2.74	43 3.54	99 4.30	4 0.10	7	136 0.23	281 2.23	90 2.54	0 21	0 54	0.14	9	704	314
Z06600																	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reductance value				Mineral constituents in parts per million				POWAY HYDRO SUBUNIT				
				Calcium C. o.	Magnesium M. g.	Sodium N. a.	Potassium K.	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl.	Nitrate NO ₃	Fluoride F.	Barium B.	Silicate S. O. 2	Total TDS Evap 80°C Evap 105°C as CaCO ₃ Computed	
14S/ 1W-6P 1 S 11-19-63	--	8.5	95.0	3.7	4.0	5.17	0.08	0.30	3.11	2.64	4.37	0	0.22	25	59.8 257	
14S/ 1W-18K 2 S 11- 7-63	--	7.7	127.0	5.4	2.9	15.3	2	0	19.2	6.7	23.0	36	0.4	0.23	4.0	60.9 81.0 254
14S/ 1W-21H 1 S 5-28-64	7.0	7.2	126.3	8.4	3.2	14.4	1	0	29.0	4.8	23.8	18	1.3	0.11	6.0	70.6 74.5 34.1
14S/ 2W-1R 2 S 3-11-64	--	7.3	511.8	3.7	2.63	6.26	0.03	4.75	1.00	6.71	0.29	2	--	--	--	76.9 338.2 98.9
14S/ 2W-15R 1 S 11-19-63	--	7.4	193.0	3.04	3.7	7.65	2.1	0	14.2	8.46	11.75	9.3	1.4	2.80	--	326.2 128.6 48.4
PENASQUITO HYDRO UNIT																
20680																
14S/ 1W-6P 1 S 11-19-63	--	8.5	95.0	3.7	4.0	5.17	0.08	0.30	3.11	2.64	4.37	0	0.22	25	59.8 257	
14S/ 1W-18K 2 S 11- 7-63	--	7.7	127.0	5.4	2.9	15.3	2	0	19.2	6.7	23.0	36	0.4	0.23	4.0	60.9 81.0 254
14S/ 1W-21H 1 S 5-28-64	7.0	7.2	126.3	8.4	3.2	14.4	1	0	29.0	4.8	23.8	18	1.3	0.11	6.0	70.6 74.5 34.1
14S/ 2W-1R 2 S 3-11-64	--	7.3	511.8	3.7	2.63	6.26	0.03	4.75	1.00	6.71	0.29	2	--	--	--	76.9 338.2 98.9
14S/ 2W-15R 1 S 11-19-63	--	7.4	193.0	3.04	3.7	7.65	2.1	0	14.2	8.46	11.75	9.3	1.4	2.80	--	326.2 128.6 48.4
20600																
14S/ 1W-6P 1 S 11-19-63	--	8.5	95.0	3.7	4.0	5.17	0.08	0.30	3.11	2.64	4.37	0	0.22	25	59.8 257	
14S/ 1W-18K 2 S 11- 7-63	--	7.7	127.0	5.4	2.9	15.3	2	0	19.2	6.7	23.0	36	0.4	0.23	4.0	60.9 81.0 254
14S/ 1W-21H 1 S 5-28-64	7.0	7.2	126.3	8.4	3.2	14.4	1	0	29.0	4.8	23.8	18	1.3	0.11	6.0	70.6 74.5 34.1
14S/ 2W-1R 2 S 3-11-64	--	7.3	511.8	3.7	2.63	6.26	0.03	4.75	1.00	6.71	0.29	2	--	--	--	76.9 338.2 98.9
14S/ 2W-15R 1 S 11-19-63	--	7.4	193.0	3.04	3.7	7.65	2.1	0	14.2	8.46	11.75	9.3	1.4	2.80	--	326.2 128.6 48.4

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in						Mineral constituents in					
				Calcium C _a	Magnesium M _g	Sodium N _a	Sulfur K	Chloride Cl ₋	Sulfate SO ₄	Bicarbonate HCO ₃	Nitrate NO ₃	Fractional parts per million equivalents	Fractional parts per million equivalents	Boron B	Silica SiO ₂
LOWER SAN DIEGO HYDRO SUBUNIT															
165/ 2W-19B 1 S	--	7.6	2350	2.6	54	31.0	2	0	4.36	287	511	14	0.2	0.26	3.3
10-31-63				1.30	4.44	13.48	0.05	7.15	5.98	14.41	0.23				14.94
165/ 2W-17H 1 S	--	7.9	2800	2.0	66	33.0	3	0	3.73	200	702	6.5	0.1	0.29	2.3
10-31-63				10.48	5.43	14.35	0.08	6.11	4.16	19.80	0.10				14.52
165/ 2W-17L 1 S	76	8.0	1380	4.6	27	24.0	4	0	3.36	12.0	24.7	0	0.8	0.46	1.9
10-31-63				2.30	2.22	10.44	0.10	5.51	2.50	6.97					19.76
165/ 3W-130 1 S	--	7.3	2440	1.25	71	37.0	3	0	3.69	26.2	57.9	0	0.2	0.28	2.1
10-31-63				6.24	5.84	16.09	0.08	6.05	5.45	16.33					8.54
165/ 3W-21J 1 S	--	7.6	3580	1.78	100	500	14	0	4.08	32.4	911	1.7	0.2	0.36	2.0
10-31-63				8.88	8.22	21.74	0.36	6.69	6.75	25.69	0.03				24.32
165/ 3W-22G 1 S	--	7.3	3750	2.48	100	56.0	4	0	4.43	56.7	70.6	3.2	0.4	0.43	2.0
10-31-63				12.38	8.22	24.35	0.10	7.26	11.80	19.91	0.52				22.50
SANTEE HYDRO SUBUNIT															
145/ 1E-33L 1 S	65	7.2	684	3.0	16	96	2	0	2.24	10	103	0	0.6	0.04	4.0
5-27-64				1.50	1.32	4.17	0.05	3.67	0.21	2.93					3.60
145/ 1E-33L 1 S	65	7.2	684	1.21	59	54	1								4.08

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reactivity value				Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfate	Total hardness Evap BOEC	Total hardness Evap 10°C	Complicated CaCO ₃	
Date sampled				Na	Na	Na	K	HCO ₃	CO ₃	NO ₃	F	B	SiO ₂	SiO ₂	SiO ₂				
LOWER SAN DIEGO HYDRO SUBUNIT SANTEE HYDRO SUBAREA																			
15S/ 1W-13N 3 S	--	7.4	1350	87	4.34	3.08	4.6	142	2	0	206	15.8	248	35	0.18	27	876	406	
11- 7-63				30	26	26	4.3	6.17	0.05	0	3.38	3.29	6.99	0.56	4				
15S/ 1W-17B 1 S	--	6.9	963	43	2.15	2.55	31	94	2	0	68	11.9	168	5	0.6	27	847	630	
1-17-64				24	29	29	46	4.09	0.05	1.11	2.48	5.30	5.30	1				235	
15S/ 1W-24C 9 S	6.8	7.8	1730	176	8.78	2.60	34	167	4	0	262	27.2	311	5.1	0.2	28	1286	543	
11- 7-63				46	15	7.26	0.10	7.26	0.10	0.10	4.29	5.66	8.77	0.08				579	
15S/ 1W-30K 2 S	--	7.4	920	58	2.89	1.89	23	104	3	0	202	6.8	152	9.7	0.4	25	586	1126	
11- 7-63				31	20	20	48	4.52	0.08	0.08	3.31	1.42	4.29	0.16	2			239	
EL CAJON HYDRO SUBAREA																			
15S/ 1E-31R 1 S	--	7.1	1310	71	3.54	3.21	39	162	3	0	178	1.72	216	65	0.4	0.17	37	900	338
11- 6-63				26	23	23	51	7.04	0.08	2.92	3.58	6.09	1.05	8				853	
15S/ 1W-28Q 3 S	--	7.7	2550	140	6.99	5.18	63	355	3	0	409	16.4	602	13	0.2	0.55	35	1630	609
11- 7-63				25	19	19	56	15.44	0.08	6.70	3.41	16.98	0.21	1				1577	
16S/ 1W-1G 1 S	--	7.3	1850	174	8.68	5.18	63	187	2	0	282	4.16	231	125	0.2	0.12	43	1478	694
11- 6-63				39	24	24	37	8.13	0.05	4.62	8.66	6.51	2.02	21				1380	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivities value								Mineral constituents in parts per million										
				Calcium C _a	Magnesium M _g	Sodium N _a	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silicate SiO ₂	TDS	Total hardness as CaCO ₃	Equiv. BOC	Equiv. TDS	Computed		
LOWER SAN DIEGO HYDRO SUBUNIT																						
EL CAJON HYDRO SUBAREA				207A0	207A3	207A5	207A5	207A5	207A5	207A5	207A5	207A5	207A5	207A5	207A5	207A5	207A5	207A5	207A5			
16S/ 1W-2K 6 S 11- 6-63	--	7.4	1950	11.2 5.59	5.10 2.7	9.78 4.8	0.03	1	0	250 4.10	158 3.29	399 11.25	106 1.71	0.18 0.55	43	1396	535					
16S/ 1W-11P 4 S 11- 6-63	--	7.3	3000	21.2 10.58	7.5 6.17	36.5 15.87	2 0.05	0	0	261 4.28	151 3.14	819 23.10	111 1.79	0.4 0.20	42	1229	2242	838				
16S/ 1W-12J 3 S 11- 6-63	--	7.4	3050	25.3 12.62	15.3 12.58	20.7 9.00	5 0.13	0	0	195 3.20	192 4.00	840 23.69	190 3.06	0.2 0.23	40	1906	2268	1261				
16S/ 1W-15K 8 S 11- 6-63	--	7.6	2600	14.8 7.39	7.5 6.17	41.5 18.04	1 0.03	0	0	573 9.39	394 8.20	496 13.99	10 0.16	0.4 0.45	53	1816	1976	679				
EL MONTE HYDRO SUBAREA				207A5	207A5	207A5	207A5	207A5	207A5	207A5	207A5	207A5	207A5	207A5	207A5	207A5	207A5	207A5	207A5			
15S/ 1E-10H 1 S 11- 7-63	66	7.7	760	6.2 3.09	2.6 2.14	60 2.61	3 0.08	0	0	255 4.18	60 1.25	94 2.65	0 1.5	0.2 0.33	25	482	262	456				

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in°F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in						Mineral constituents in						Total hardness as CaCO ₃		
				Calcium	Magnesium	Sodium	Potassium	Sodium	Chloride	Bicarbonate	Boron	Sulfate	Nitrate	Fluoride	Boron	Silica	TDS	Total hardness as CaCO ₃
Date sampled				Ca	Mg	K	Na	HCO ₃	CO ₃	Cl	SO ₄	NO ₃	F	B	SiO ₂	Evap 80°C	Evap 105°C	Combed
EL CAPITAN HYDRO SUBUNIT ALPINE HYDRO SUBAREA																		
15S/ 2E-27L 1 S 3-18-64	70	7.0	1366	118 5.89 40	53 4.36 29	100 0.18 1	7 0	425 6.97 46	81 1.69 11	221 6.23 41	13.6 0.3 1	0.3 0.22 1	0.16 59	59	920	513		
SAN DIEGO HYDRO UNIT																		
20700																		
207C0																		
207C3																		
207C0																		
207C3																		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents in percent				Mineral constituents in parts per million equivalents in percent				Mineral constituents in parts per million			
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silicate B
Date sampled	in °F	Mg %	No	K %	HCO ₃	CO ₃	SO ₄	Cl	NO ₃	F	B	Silicate B	S.O ₂	CaCO ₃	
CUYAMACA HYDRO SUBUNIT INAJA HYDRO SUBAREA															
13S/ 3E-13J 1 S	60	7.2	810	62	5.59	0.91	0.03	1	0	288	144	53	7.2	-0.3	0
5-26-64				3.09	3.2	58	9		4.72	3.00	1.49	0.12	1	0	50
13S/ 4E-21K 1 S	58	6.8	417	29	1.64	1.22	0.13	5	0	159	38	31	0.0	0.3	0
5-26-64				1.45	3.3	37	27		2.61	0.79	0.87	19	20		35
SPENCER HYDRO SUBAREA			Z07D2												220
12S/ 3E-35C 1 S	68	7.5	360	30	1.50	0.99	1.22	0.08	0	117	41	27	4.5	0.3	0
5-26-64				4.0	26	26	32	2	1.92	0.85	0.76	21	2	0	270
12S/ 3E-35P 1 S	62	7.5	525	42	2.10	1.73	1.35	0.10	0	144	31	46	56	0.3	0
5-26-64				2.10	40	33	26	2	2.36	0.65	1.30	25	17	0	25
12S/ 3E-35P 2 S	65	6.4	366	17	0.85	1.32	1.35	0.05	0	85	25	57	0.5	0.5	0
5-26-64				24	37	38	1		1.39	0.52	1.61	39	15	0.01	45
CUYAMACA HYDRO SUBAREA			Z07D3												240
14S/ 4E-4M 1 S	68	7.8	267	22	1.10	0.82	1.65	0.03	0	83	22	18	0.2	0.01	60
5-26-64				4.2	32	32	25	1	1.36	0.46	0.48	18	19	0.29	195
															206

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalent percent reaction value						Mineral constituents in parts per million							
				Magnesium	Sodium	Potassium	Chloride	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Dissolved solids	Total hardness as Evap 80°C	Total hardness as Evap 105°C	
Date sampled				Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	F	E	S	O ₂	CaCO ₃		
SWEETWATER HYDRO SUBAREA																	
17S/ 2W-33B 1 S 11- 5-63	--	8.0	2810	110	4.9	4.85	15	0	329	139	791	0	0.2	0.40	22	1820	476
				5.49	4.03	21.09	0.38	1	5.39	2.89	22.31						
				18	13	6.8			18	9	73						
17S/ 2W-36D 1 S 11- 5-63	--	7.9	3450	279	83	4.75	2	0	477	327	940	0	0.2	0.30	17	2660	1038
				13.92	6.83	20.65	0.05	16	7.82	6.81	26.51						
									19	17	64						
SWEETWATER HYDRO SUBUNIT																	
17S/ 2W-33B 1 S 11- 5-63	--	8.0	2810	110	4.9	4.85	15	0	329	139	791	0	0.2	0.40	22	1820	476
				5.49	4.03	21.09	0.38	1	5.39	2.89	22.31						
				18	13	6.8			18	9	73						
17S/ 2W-36D 1 S 11- 5-63	--	7.9	3450	279	83	4.75	2	0	477	327	940	0	0.2	0.30	17	2660	1038
				13.92	6.83	20.65	0.05	16	7.82	6.81	26.51						
									19	17	64						
20900																	
SWEETWATER HYDRO UNIT																	
17S/ 2W-33B 1 S 11- 5-63	--	8.0	2810	110	4.9	4.85	15	0	329	139	791	0	0.2	0.40	22	1820	476
				5.49	4.03	21.09	0.38	1	5.39	2.89	22.31						
				18	13	6.8			18	9	73						
17S/ 2W-36D 1 S 11- 5-63	--	7.9	3450	279	83	4.75	2	0	477	327	940	0	0.2	0.30	17	2660	1038
				13.92	6.83	20.65	0.05	16	7.82	6.81	26.51						
									19	17	64						

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity value						Mineral constituents in parts per million						
				Calcium	Magnesium	Sodium	Potassium	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silicate	TDS	Total hardness
Date sampled				Na	Mg	K	CO ₃	HCO ₃	SO ₄	Cl	B	F	CO ₂	SO ₂	CaCO ₃	
MIDDLE SWEETWATER HYDRO SUBUNIT JAMACHA HYDRO SUBAREA																
16S/ 2E-28H 1 S 4-30-64	--	7.7	660	5.6	15	65	3	0	217	51	84	0.9	0.4	0.16	4.7	408
16S/ 2E-32D 1 S 4-30-64	--	6.9	633	2.79	1.23	2.83	0.08	1	3.56	1.06	2.37	0.01	0.02	0.05	4.29	429
				4.0	18	41			51	15	34					379
																393
SWEETWATER HYDRO UNIT																
209B0																
16S/ 2E-28H 1 S 4-30-64	--	7.7	660	5.6	15	65	3	0	217	51	84	0.9	0.4	0.16	4.7	408
16S/ 2E-32D 1 S 4-30-64	--	6.9	633	3.3	14	78	2	0	176	28	104	1.2	0.4	0.05	4.6	379
				1.65	1.15	3.39	0.05	1	2.88	0.58	2.93	0.02				393
				2.6	18	54			45	9	46					
Z0900																

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reaction value				Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	TDS
Date sampled	Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	SiO ₂	SiO ₂	Total hardness as CaCO ₃	
UPPER SWEETWATER HYDRO SUBUNIT LOVELAND HYDRO SUBAREA																
15S/ 3E-29E 1 S 4-28-64	62	6.8	351	1.30	1.15	14	25	0	122	13	36	12.4	0.2	0	26.4	12.3
15S/ 4E- 9F 1 S 4-29-64	60	7.4	570	3.49	0.90	1.30	0.05	0	2.00	0.27	1.02	0.20	0.29	0	25.2	
15S/ 4E- 9G51 5 4-29-64	58	7.4	396	4.4	9	27	3	0	256	28	40	1.8	0.4	0	31	35.9
15S/ 4E-19D 1 S 4-28-64	54	7.1	520	4.5	16	42	3	0	194	16	26	0.4	0.4	0.01	4.3	25.0
14S/ 4E-27G 1 S 5-28-64	60	7.8	323	3.3	1.32	1.83	0.08	0	167	79	40	1.1	0.3	0.04	3.7	14.7
SWEETWATER HYDRO UNIT 209C1																
15S/ DESCANSO HYDRO SUBAREA	70	11	26	1.30	1.15	14	25	0	122	13	36	12.4	0.2	0	26.4	12.3
15S/ DESCANSO HYDRO SUBAREA	61	16	36	3.49	0.90	1.30	0.05	0	2.00	0.27	1.02	0.20	0.29	0	25.2	
15S/ GARNET HYDRO SUBAREA	70	11	26	1.30	1.15	14	25	0	122	13	36	12.4	0.2	0	26.4	12.3
15S/ GARNET HYDRO SUBAREA	61	16	36	3.49	0.90	1.30	0.05	0	2.00	0.27	1.02	0.20	0.29	0	25.2	
209C4																
15S/ 4E-29-64	58	7.4	396	2.20	0.74	1.17	0.08	0	194	16	26	0.4	0.4	0.01	4.3	25.0
15S/ 4E-29-64	53	18	53	1.8	2.8	28	2	0	3.18	0.33	0.73	0.01	1.7	0.01	3.40	34.0
15S/ 4E-29-64	54	7.1	520	4.5	16	42	3	0	167	79	40	1.1	0.3	0.04	3.7	26.4
15S/ 4E-29-64	41	24	41	2.25	1.32	1.83	0.08	0	2.74	1.64	1.13	0.02	2.0	0.02	3.7	33.0
14S/ 4E-27G 1 S 5-28-64	60	7.8	323	3.3	1.32	1.83	0.08	0	132	25	21	1.0	0.8	0.04	3.4	21.0
14S/ 4E-27G 1 S 5-28-64	50	15	50	1.65	0.49	1.13	0.05	0	2.16	0.52	0.59	0.02	18	0.1	2.14	21.4

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reaction value						Mineral constituents in parts per million						
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	
Date sampled	Co.	Mg	K	No	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	SiO ₂	SiO ₂		
OTAY HYDRO SUBUNIT																
Z10B0																
18S/ 2W-21J 1 S 5-13-64	--	7.8	2650	182 9.08	64 5.26	295 12.83	3 0.08	0	122 2.00	94 1.96	837 23.60	0	0.1	0.27	16	1664
18S/ 2W-21L 1 S 10- 8-63	--	7.4	2100	138 6.89	66 5.43	248 10.78	5 0.13	0	152 2.49	106 2.21	654 18.44	0	0.2	0.22	15	1551
6-23-64	--	7.9	2551	164 8.18	63 5.18	243 10.57	5 0.13	0	154 2.52	111 2.31	672 18.95	1.0 0.02	0.5	0.20	--	616
18S/ 2W-22H 1 S 11- 1-63	71	7.0	1580	96 4.03	49 7.96	183 0.05	2 0.05	0	172 2.82	65 1.35	431 12.15	10 0.16	0.1	0.17	34	1307
18S/ 2W-22L 2 S 5-13-64	--	7.3	2100	137 6.84	66 5.43	225 9.78	3 0.08	0	216 3.54	101 2.10	564 15.90	14 0.23	0.2	0.21	31	1660
6-23-64	71	8.2	2558	164 8.18	77 6.33	233 10.13	8 0.20	0	232 3.80	116 2.42	635 17.91	29 0.47	0.4	0.11	--	669
18S/ 2W-22N 2 S 5-13-64	--	6.9	910	25 1.25	33 2.71	97 4.22	38 0.97	0	123 2.02	31 0.65	194 5.47	62 1.00	2.0	0.21	31	1335
6-23-64	--	7.0	790	48 2.40	13 1.07	96 4.17	13 0.33	0	85 1.39	30 0.62	179 5.05	63 1.02	0.2	0.14	--	441
OTAY HYDRO UNIT																
Z1000																
18S/ 2W-21J 1 S 5-13-64	--	7.8	2650	182 9.08	64 5.26	295 12.83	3 0.08	0	122 2.00	94 1.96	837 23.60	0	0.1	0.27	16	718

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Mineral constituents in						Mineral constituents per million parts per million										
			Specific conductance (micro-mhos at 25°C)	Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfur	TDS	Total hardness	Evap 80°C	Evap 105°C
Date sampled	C.O.	C.O.	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	F	θ	SiO ₂							
OTAY HYDRO SUBUNIT																			
Z10R0																			
18S/ 2W-24F 1 S	74	7.4	1600	80	4.0	228	3	0	247	93	390	0	0.42	0.30	31	1116	364		
11- 1-63				3.99	3.29	9.91	0.08		4.05	1.94	11.00								
				23	19	57			24	11	65								
OTAY HYDRO UNIT																			
Z1000																			
18S/ 2W-24F 1 S	74	7.4	1600	80	4.0	228	3	0	247	93	390	0	0.42	0.30	31	1116	364		
11- 1-63				3.99	3.29	9.91	0.08		4.05	1.94	11.00								
				23	19	57			24	11	65								

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactivity value						Mineral constituents in parts per million						
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Boron	Silica	TDS	Evap 180°C total hardness as CaCO ₃
Date sampled				K	Mg	Na	CO ₃	HCO ₃	CO ₂	Ca	B	SiO ₂	50.2			
DULZURA HYDRO SURUNIT																
JAMUL HYDRO SUBAREA																
17S/ 1E-4H 1 S	--	7.5	2070	114	98	223	2	0	456	83	489	12	0.1	0.23	32	1586
11- 6-63				5.69	8.06	9.70	0.05		7.47	1.73	13.79	0.19				688
				24	34	41			32	7	59	1				1278
17S/ 1E-106 1 S	--	7.7	1080	43	130	3	0	212	73	216	11	0.4	0.19	4.1	762	285
11- 6-63				2.15	3.54	5.65	0.08		3.47	1.52	6.09	0.18				665
				19	31	49	1		31	13	54	2				260
17S/ 2E-29J 1 S	61	7.4	963	68	22	103	3	0	233	51	177	0.6	1.2	0.16	4.4	577
4-28-64				3.39	1.81	4.48	0.08		3.82	1.06	4.99	0.01				584
				35	19	46	1		39	11	51					
OTAY HYDRO UNIT																
Z10C0																
DULZURA HYDRO SURUNIT																
Z10C3																
17S/ 1E-4H 1 S	--	7.5	2070	114	98	223	2	0	456	83	489	12	0.1	0.23	32	1586
11- 6-63				5.69	8.06	9.70	0.05		7.47	1.73	13.79	0.19				688
				24	34	41			32	7	59	1				1278
17S/ 1E-106 1 S	--	7.7	1080	43	130	3	0	212	73	216	11	0.4	0.19	4.1	762	285
11- 6-63				2.15	3.54	5.65	0.08		3.47	1.52	6.09	0.18				665
				19	31	49	1		31	13	54	2				260
17S/ 2E-29J 1 S	61	7.4	963	68	22	103	3	0	233	51	177	0.6	1.2	0.16	4.4	577
4-28-64				3.39	1.81	4.48	0.08		3.82	1.06	4.99	0.01				584
				35	19	46	1		39	11	51					
Z1000																
DULZURA HYDRO SURUNIT																
Z1003																
17S/ 1E-4H 1 S	--	7.5	2070	114	98	223	2	0	456	83	489	12	0.1	0.23	32	1586
11- 6-63				5.69	8.06	9.70	0.05		7.47	1.73	13.79	0.19				688
				24	34	41			32	7	59	1				1278
17S/ 1E-106 1 S	--	7.7	1080	43	130	3	0	212	73	216	11	0.4	0.19	4.1	762	285
11- 6-63				2.15	3.54	5.65	0.08		3.47	1.52	6.09	0.18				665
				19	31	49	1		31	13	54	2				260
17S/ 2E-29J 1 S	61	7.4	963	68	22	103	3	0	233	51	177	0.6	1.2	0.16	4.4	577
4-28-64				3.39	1.81	4.48	0.08		3.82	1.06	4.99	0.01				584
				35	19	46	1		39	11	51					

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH at 25°C	Mineral constituents in parts per million equivalents per million reactance value						Mineral constituents in parts per million						
			Specific conductance (micro-mhos at 25°C)	Col- cium C o	Magnes- ium M g	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chloride Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Sil- ica SiO ₂
TIA JUANA HYDRO SUBUNIT															
TIA JUANA HYDRO SUBAREA	Z11AO	Z11AI													
18S/ 2W-28L 1 S 3- 4-64	80	7.5	4371	11.28	121	547	0.15	0	341	213	1230	0.6	0.42	33	3002
				25	9.95	23.78	0.59	5	4.43	34.69	0.40	1			1062
18S/ 2W-32H 1 S 10- 7-63	70	7.2	11200	675	247	1900	10	0	541	817	3869	0	0.2	1.17	20
				33.68	20.31	82.61	0.26		8.87	17.01	109.11				2570
				25	15	60		7		13	81				9584
															2702
3- 5-64	68	7.5	10549	452	301	1596	1.2	0	547	737	3250	3.7	1.0	0.90	27
				22.55	24.75	69.39	0.31		8.97	15.34	91.65	0.06			7805
18S/ 2W-32P 4 S 10- 3-63	69	6.9	28300	798	936	5240	121	0	307	1382	10940	13	1.0	1.26	--
				39.82	76.98	227.84	3.09		5.03	28.77	308.51	0.21			7313
				11	22	66	1		1	8	90				2367
3- 3-64	68	7.0	29412	774	1025	5340	134	0	330	1499	11375	5.6	1.1	1.16	24
				38.62	84.30	322.18	3.63		5.41	31.21	320.78	0.09			6650
18S/ 2W-320 1 S 10- 3-63	70	7.8	16270	882	466	2346	20	0	126	742	5880	11	0.7	0.61	--
				4.01	38.32	102.00	0.51		2.07	15.45	165.82	0.18			19583
3- 3-64	68	6.6	16670	880	531	2376	17	0	219	791	6025	6.2	0.9	0.54	24
				43.91	43.67	103.31	0.43		3.59	16.47	169.91	0.10			22842
18S/ 2W-33K 4 S 11- 4-63	66	7.3	3750	319	107	485	4	0	416	618	901	0	0.4	0.56	20
				15.92	8.80	21.09	0.10		6.02	12.87	25.41	15	29		10410
				35	19	46									13380
															4120
															4383
															10756
															1237
															2659

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per percent reaction value					Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfuric acid	Total Evap 10°C as CaCO_3
Date sampled																
TIA JUANA HYDRO SUBUNIT TIA JUANA HYDRO SUBAREA														Z1100		
185 / 2W-33L 4 S 6-23-64	69	7.7	4.227	297	127	466	12	0	4.07	612	940	1.0	0.9	0.47	--	3092
				14.82	32	10.44	20.26	0.31	6.67	12.74	26.51	0.02				1264
					32	32	44	1	5.10	28	58					2656
185 / 2W-33L 5 S 3- 4-64	70	7.6	4.805	296	133	561	8	0	8.36	391	1195	6.7	0.8	1.00	--	3217
				14.77	29	10.94	24.39	0.20	8.36	8.14	33.70	0.14				1287
185 / 2W-33L 9 S 3- 4-64	--	7.2	4.760	274	129	616	25	0	5.74	453	1165	11	0.9	0.60	16	2845
				13.67	10.61	26.78	0.64	9.41	9.43	32.85	0.18					1215
185 / 2W-33L10 S 10- 8-63	70	8.5	1.780	26	47	370	12	327	237	372	0.9	0.2	0.46	46	2973	
				1.30	3.87	16.09	0.09	0.00	5.36	4.93	10.49	0.01				259
				6	18	75	1	2	25	23	50					1284
11- 1-63	94	7.7	1.890	46	32	360	9	0	350	240	344	0	0.2	0.53	47	1270
				2.30	2.63	15.65	0.23	5.74	5.00	9.70	4.7					259
3- 4-64	96	7.8	2025	42	50	342	10	0	373	232	349	4.8	0.6	0.38	62	1284
				2.10	4.11	14.87	0.26	6.11	4.83	9.64	0.08					311
185 / 2W-34F 1 S 6-22-64	68	7.3	6.800	373	153	1070	10	0	616	850	1798	0	0.4	1.00	--	1276
				18.61	12.58	46.52	0.26	10.10	17.70	50.70	65					1561
185 / 2W-34L 2 S 6-22-64	70	7.7	5.400	329	117	860	8	0	594	939	1149	74	0.2	0.83	--	4558
				16.42	9.62	37.39	0.20	15.59	9.74	19.55	32.40	1.19	15	52	3769	3820
															1303	

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent radianc e value				Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Baron	Silicate	Toluene	Hardness as CaCO ₃
Date sampled				Na	K	Na	Mg	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	
TIA JUANA HYDRO SUBUNIT																
18S/ 2W-34P 1 S 6-22-64	69	7.4	3900	323	90	4.75	0	348	735	798	8	0.6	0.43	--	2750	1177
18S/ 2W-35L 1 S 10-31-63	--	7.6	4500	303	105	20.65	0.15	5.70	15.30	22.50	0.13	--	--	--	2607	3122
19S/ 2W-1M13 S 10-31-63	68	7.7	3050	218	73	4.20	7	0	546	315	1259	0	0.1	0.69	21	1189
19S/ 2W-1N 6 S 10-31-63	--	8.2	1550	10.88	6.00	18.26	0.18	6.65	4.06	24.0	837	3.0	0.4	0.55	17	2911
19S/ 2W-4H 7 S 6-23-64	72	7.6	2090	49	46	3.78	14.57	0.33	1.9	5.00	23.60	0.05	--	--	--	2156
19S/ 2W-4L 1 S 11-1-63	68	7.4	3400	295	100	4.65	4	0	302	128	279	0	0.2	0.36	50	845
19S/ 2W-5A 3 S 3-5-64	68	7.2	4458	82	96	587	19	0	4.95	2.66	7.87	51	--	--	--	2016
19S/ 2W-5B 6 S 10-3-63	68	7.5	9083	554	256	1113	13	0	1.56	0.48	1375	53	0.3	0.14	--	312
				27.64	21.05	48.39	0.33	3.25	0.25	8.93	3060	8.7	0.6	0.42	--	2436
				28	50	50	--	3	9	88	86.29	0.14	--	--	5532	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents				parts per million equivalents per percent readability value				Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbon dioxide	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	TDS
Date sampled																Total hardness as CaCO ₃
TIA JUANA HYDRO SUBUNIT TIA JUANA HYDRO SUBAREA																Excl 80°C Computed
195/ 2W- 5B 6 S 3- 3-64	67	7.6	9524	570	2844	2319	5100	0.26	0	255	454	3140	6.2	0.34	25	6870
195/ 2W- 5C 6 S 10- 4-63	69	7.8	23300	638	675	4280	41	0	264	1146	8780	12	0.9	1.20	--	5787
195/ 2W- 5G 6 S 10- 7-63	68	7.3	23419	670	733	4325	40	0	354	1267	8900	6.2	0.9	1.15	22	16590
3- 4-64				3343	60.28	188.05	1.02		5.80	26.38	250.98	0.10				4371
195/ 2W- 5G18 S 10- 7-63	70	6.9	7850	455	186	1140	6	0	250	531	2528	0	0.1	0.37	17	15704
3- 4-64				2270	15.00	49.57	0.15		4.10	11.06	71.29					4689
195/ 2W- 5L 2 S 10- 4-63	68	7.3	8651	432	242	1175	8	0	156	515	2790	5.6	0.9	0.54	16	16139
3- 4-64				2156	19.90	51.09	0.20		2.56	10.72	78.88	0.09				1902
195/ 2W- 5L 2 S 11- 1-63	69	7.9	8960	403	241	1260	19	0	121	499	3000	12	0.6	0.65	--	4986
3- 4-64				2315	22.29	58.52	0.46		1.98	10.39	84.60	0.19				2075
195/ 2W- 5Q 2 S 11- 1-63	69	7.3	9833	464	271	1346	18	0	325	541	3075	6.2	0.9	0.60	21	5262
3- 4-64				2221	54.82	1478	0.13		5.33	11.26	86.72	0.10				1998
195/ 2W- 5Q 2 S 11- 1-63	69	7.3	2900	236	66	340	5	0	296	346	691	0	0.4	0.41	29	5495
				1178	5.43	14.6			4.85	7.20	19.49					2274
				1137	17	46			15	23	62					5904
																861
																1859

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reaction value				Mineral constituents in parts per million			
				Cerium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fumarate	Boron	Sulfur dioxide
Date sampled	in °F	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	S	CO ₂	Compound	Total Evap. 105°C as CO ₂
POTRERO HYDRO SUBUNIT															
18S/ 2E-14C 1 S 6-24-64	--	7.2	555	24 1.20 21	20 1.64 28	66 2.87 50	2 0.05 1	0 3.47 61	212 0.52 30	25 1.72 30	61 0.02	1.0 0.08	57	360	14.2
BARRETT HYDRO SUBAREA				211B3											361
18S/ 3E-7N 1 S 6-25-64	--	7.4	917	72 3.59 39	26 2.14 23	79 3.43 37	3 0.08 1	0 3.56 39	217 1.02 11	49 4.51 49	160 2.5 49	1.0 0.04	26	570	287
TIA JUANA HYDRO UNIT															
18S/ 2E-14C 1 S 6-24-64	--	7.2	555	24 1.20 21	20 1.64 28	66 2.87 50	2 0.05 1	0 3.47 61	212 0.52 30	25 1.72 30	61 0.02	1.0 0.08	57	360	14.2
18S/ 3E-7N 1 S 6-25-64	--	7.4	917	72 3.59 39	26 2.14 23	79 3.43 37	3 0.08 1	0 3.56 39	217 1.02 11	49 4.51 49	160 2.5 49	1.0 0.04	26	570	287
Z11B0															
18S/ 2E-14C 1 S 6-24-64	--	7.2	555	24 1.20 21	20 1.64 28	66 2.87 50	2 0.05 1	0 3.47 61	212 0.52 30	25 1.72 30	61 0.02	1.0 0.08	57	360	14.2
18S/ 3E-7N 1 S 6-25-64	--	7.4	917	72 3.59 39	26 2.14 23	79 3.43 37	3 0.08 1	0 3.56 39	217 1.02 11	49 4.51 49	160 2.5 49	1.0 0.04	26	570	287
Z11B2															
18S/ 2E-14C 1 S 6-24-64	--	7.2	555	24 1.20 21	20 1.64 28	66 2.87 50	2 0.05 1	0 3.47 61	212 0.52 30	25 1.72 30	61 0.02	1.0 0.08	57	360	14.2
18S/ 3E-7N 1 S 6-25-64	--	7.4	917	72 3.59 39	26 2.14 23	79 3.43 37	3 0.08 1	0 3.56 39	217 1.02 11	49 4.51 49	160 2.5 49	1.0 0.04	26	570	287
Z11B3															
18S/ 2E-14C 1 S 6-24-64	--	7.2	555	24 1.20 21	20 1.64 28	66 2.87 50	2 0.05 1	0 3.47 61	212 0.52 30	25 1.72 30	61 0.02	1.0 0.08	57	360	14.2
18S/ 3E-7N 1 S 6-25-64	--	7.4	917	72 3.59 39	26 2.14 23	79 3.43 37	3 0.08 1	0 3.56 39	217 1.02 11	49 4.51 49	160 2.5 49	1.0 0.04	26	570	287
Z11C0															
18S/ 2E-14C 1 S 6-24-64	--	7.2	555	24 1.20 21	20 1.64 28	66 2.87 50	2 0.05 1	0 3.47 61	212 0.52 30	25 1.72 30	61 0.02	1.0 0.08	57	360	14.2
18S/ 3E-7N 1 S 6-25-64	--	7.4	917	72 3.59 39	26 2.14 23	79 3.43 37	3 0.08 1	0 3.56 39	217 1.02 11	49 4.51 49	160 2.5 49	1.0 0.04	26	570	287
Z11C2															
18S/ 2E-14C 1 S 6-24-64	--	7.2	555	24 1.20 21	20 1.64 28	66 2.87 50	2 0.05 1	0 3.47 61	212 0.52 30	25 1.72 30	61 0.02	1.0 0.08	57	360	14.2
18S/ 3E-7N 1 S 6-25-64	--	7.4	917	72 3.59 39	26 2.14 23	79 3.43 37	3 0.08 1	0 3.56 39	217 1.02 11	49 4.51 49	160 2.5 49	1.0 0.04	26	570	287
Z11C3															
18S/ 2E-14C 1 S 6-24-64	--	7.2	555	24 1.20 21	20 1.64 28	66 2.87 50	2 0.05 1	0 3.47 61	212 0.52 30	25 1.72 30	61 0.02	1.0 0.08	57	360	14.2
18S/ 3E-7N 1 S 6-25-64	--	7.4	917	72 3.59 39	26 2.14 23	79 3.43 37	3 0.08 1	0 3.56 39	217 1.02 11	49 4.51 49	160 2.5 49	1.0 0.04	26	570	287
Z11D0															
18S/ 2E-14C 1 S 6-24-64	--	7.2	555	24 1.20 21	20 1.64 28	66 2.87 50	2 0.05 1	0 3.47 61	212 0.52 30	25 1.72 30	61 0.02	1.0 0.08	57	360	14.2
18S/ 3E-7N 1 S 6-25-64	--	7.4	917	72 3.59 39	26 2.14 23	79 3.43 37	3 0.08 1	0 3.56 39	217 1.02 11	49 4.51 49	160 2.5 49	1.0 0.04	26	570	287
Z11D2															
18S/ 2E-14C 1 S 6-24-64	--	7.2	555	24 1.20 21	20 1.64 28	66 2.87 50	2 0.05 1	0 3.47 61	212 0.52 30	25 1.72 30	61 0.02	1.0 0.08	57	360	14.2
18S/ 3E-7N 1 S 6-25-64	--	7.4	917	72 3.59 39	26 2.14 23	79 3.43 37	3 0.08 1	0 3.56 39	217 1.02 11	49 4.51 49	160 2.5 49	1.0 0.04	26	570	287
Z11D3															
18S/ 2E-14C 1 S 6-24-64	--	7.2	555	24 1.20 21	20 1.64 28	66 2.87 50	2 0.05 1	0 3.47 61	212 0.52 30	25 1.72 30	61 0.02	1.0 0.08	57	360	14.2
18S/ 3E-7N 1 S 6-25-64	--	7.4	917	72 3.59 39	26 2.14 23	79 3.43 37	3 0.08 1	0 3.56 39	217 1.02 11	49 4.51 49	160 2.5 49	1.0 0.04	26	570	287
Z11E0															
18S/ 2E-14C 1 S 6-24-64	--	7.2	555	24 1.20 21	20 1.64 28	66 2.87 50	2 0.05 1	0 3.47 61	212 0.52 30	25 1.72 30	61 0.02	1.0 0.08	57	360	14.2
18S/ 3E-7N 1 S 6-25-64	--	7.4	917	72 3.59 39	26 2.14 23	79 3.43 37	3 0.08 1	0 3.56 39	217 1.02 11	49 4.51 49	160 2.5 49	1.0 0.04	26	570	287
Z11E2															
18S/ 2E-14C 1 S 6-24-64	--	7.2	555	24 1.20 21	20 1.64 28	66 2.87 50	2 0.05 1	0 3.47 61	212 0.52 30	25 1.72 30	61 0.02	1.0 0.08	57	360	14.2
18S/ 3E-7N 1 S 6-25-64	--	7.4	917	72 3.59 39	26 2.14 23	79 3.43 37	3 0.08 1	0 3.56 39	217 1.02 11	49 4.51 49	160 2.5 49	1.0 0.04	26	570	287
Z11E3															
18S/ 2E-14C 1 S 6-24-64	--	7.2	555	24 1.20 21	20 1.64 28	66 2.87 50	2 0.05 1	0 3.47 61	212 0.52 30	25 1.72 30	61 0.02	1.0 0.08	57	360	14.2
18S/ 3E-7N 1 S 6-25-64	--	7.4	917	72 3.59 39	26 2.14 23	79 3.43 37	3 0.08 1	0 3.56 39	217 1.02 11	49 4.51 49	160 2.5 49	1.0 0.04	26	570	287
Z11F0															
18S/ 2E-14C 1 S 6-24-64	--	7.2	555	24 1.20 21	20 1.64 28	66 2.87 50	2 0.05 1	0 3.47 61	212 0.52 30	25 1.72 30	61 0.02	1.0 0.08	57	360	14.2
18S/ 3E-7N 1 S 6-25-64	--	7.4	917	72 3.59 39	26 2.14 23	79 3.43 37	3 0.08 1	0 3.56 39	217 1.02 11	49 4.51 49	160 2.5 49	1.0 0.04	26	570	287
Z11F2															
18S/ 2E-14C 1 S 6-24-64	--	7.2	555	24 1.20 21	20 1.64 28	66 2.87 50	2 0.05 1	0 3.47 61	212 0.52 30	25 1.72 30	61 0.02	1.0 0.08	57	360	14.2
18S/ 3E-7N 1 S 6-25-64	--	7.4	917	72 3.59 39	26 2.14 23	79 3.43 37	3 0.08 1	0 3.56 39	217 1.02 11	49 4.51 49	160 2.5 49	1.0 0.04	26	570	287
Z11F3															
18S/ 2E-14C 1 S 6-24-64	--	7.2	555	24 1.20 21	20 1.64 28	66 2.87 50	2 0.05 1	0 3.47 61	212 0.52 30	25 1.72 30	61 0.02	1.0 0.08	57	360	14.2
18S/ 3E-7N 1 S 6-25-64	--	7.4	917	72 3.59 39	26 2.14 23	79 3.43 37	3 0.08 1	0 3.56 39	217 1.02 11	49 4.51 49	160 2.5 49	1.0 0.04	26	570	287
Z11G0															
18S/ 2E-14C 1 S 6-24-64	--	7.2	555	24 1.20 21	20 1.64 28	66 2.87 50	2 0.05 1	0 3.47 61	212 0.52 30	25 1.72 30	61 0.02	1.0 0.08	57	360	14.2
18S/ 3E-7N 1 S 6-25-64	--	7.4	917	72 3.59 39	26 2.14 23	79 3.43 37	3 0.08 1	0 3.56 39	217 1.02 11	49 4.51 49	160 2.5 49	1.0 0.04	26	570	287
Z11G2															
18S/ 2E-14C 1 S 6-24-64	--	7.2	555	24 1.20 21	20 1.64 28	66 2.87 50	2 0.05 1	0 3.47 61	212 0.52 30	25 1.72 30	61 0.02	1.0 0.08	57	360	14.2
18S/ 3E-7N 1 S 6-25-64	--	7.4	917	72 3.59 39	26 2.14 23	79 3.43 37	3 0								

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent redoxence value						Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	TDS	Total hardness
Date sampled	Mg	Mg	K	No	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	Expt 180°C	Expt 105°C	as CaCO ₃		
MONUMENT HYDRO SUBUNIT MONUMENT HYDRO SUBAREA Z11D0 Z11D2 Z11D2																	
15S / 5E - 30S 1 S 4-29-64	4.8	7.6	372	4.2 2.10 54	1.1 0.90 23	18 0.78 20	3 0.08 2	0 2.72 69	166 0.62 16	30 0.62 15	21 0.59 15	1.5 0.02 1	0.2	0	38	254	150
																	24.6

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in						parts per million equivalents per percent reacitance						Mineral constituents in parts per million					
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfate	Total Evap 80°C	Total Evap 105°C	Hardness as Caco ₃	Computed S.O.2		
COTTONWOOD HYDRO SUBUNIT																					
16S/ 5E- 6M 1 S 4-29-64	--	6.6	271	16	0.80	0.82	0.96	0.03	22	1	0	79	17	33	4.8	0.2	0	39	205	81	
16S/ 5E- 6M 2 S 4-29-64	--	7.6	247	16	0.80	0.82	0.87	0.03	20	1	0	100	1	29	1.2	0.2	0.02	2	135	81	
17S/ 5E- 4C 2 S 6-26-64	--	7.1	866	87	4.34	2.96	2.43	0.08	56	3	0	117	329	35	0.5	0.6	0.10	40	660	365	
TIA JUANA HYDRO UNIT																					
Z11FO																					
16S/ 5E- 6M 1 S 4-29-64	--	6.6	271	31	31	31	37	1	0.96	0.03	0	1.29	0.35	0.93	0.08	3	35	13	35	13	35
16S/ 5E- 6M 2 S 4-29-64	--	7.6	247	32	32	33	35	1	0.82	0.03	0	1.64	0.02	0.82	0.02	1	33	1	33	1	33
17S/ 5E- 4C 2 S 6-26-64	--	7.1	866	44	30	30	25	1	2.96	0.08	0	1.92	6.85	0.99	0.01	10	70	20	70	10	70

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				Mineral constituents in			
				Ca	Mg	Na	K	B	Silico S O ₂	TDS Evap 80°C Evap 105°C Computed	
CAMPO HYDRO SUBUNIT											
CAMPO HYDRO SUBAREA	Z11HO	Z11H2	Z11H2								
175/ 5E-36B 1 S 4-28-64	62	7.5	337	26	7	37	2	0	160	4	30
				1.30	0.8	1.61	0.05	2.62	0.08	0.85	2.8
				37	16	45	1	73	2	1	0.05
185/ 4E-24G 1 S 6-25-64	--	7.5	430	20	15	47	3	0	171	19	39
				1.00	1.23	2.04	0.08	2.80	0.40	1.10	3.5
				23	28	47	2	64	9	25	0.06
185/ 5E-1B 1 S 6-24-64	--	7.2	398	23	11	42	2	0	156	7	44
				1.15	0.90	1.83	0.05	2.56	0.15	1.24	2.0
				29	23	47	1	64	4	31	0.03
CLOVER FLAT HYDRO SUBAREA											
CLOVER FLAT HYDRO SUBAREA	Z11H3	Z11H3	Z11H3								
175/ 6E-9R 1 S 6-26-64	--	7.4	231	16	4	23	2	0	90	5	15
				0.80	0.33	1.00	0.05	1.48	0.10	0.42	20
				37	15	46	2	64	4	18	0.32
175/ 5E-24F 1 S 6-26-64	--	8.0	348	24	10	37	2	0	176	5	23
				1.20	0.82	1.61	0.05	2.88	0.10	0.65	2.0
				33	22	44	1	79	3	18	0.03
HILL HYDRO SUBAREA											
HILL HYDRO SUBAREA	Z11H4	Z11H4	Z11H4								
175/ 6E-25E 1 S 4-28-64	61	6.9	729	49	19	76	3	0	207	20	123
				2.45	1.56	3.30	0.08	3.39	0.42	3.47	7.2
				33	21	45	1	46	6	4.7	0.12
											2

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per milliliter reactance value				Mineral constituents in parts per million									
				Magnesium	Sodium	Potassium	Sulfur	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfate	TDS	Total Evap. 80°C
Date sampled				Mg	Na	K	S	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SO ₂		Total Evap. 105°C Compounds CaCO ₃
CAMPO HYDRO SUBUNIT																	
HIPASS HYDRO SUBAREA A																	
18S/ 6E-12P 1 S	--	8.2	642	50	12	3	0	234	16	83	4.5	0.7	0.08	52	410	175	
6-26-64				2.50	0.99	3.13	0.08	3.84	0.33	2.34	0.07						
				37	15	4.7	1	58	5	36	1						
Z11HO																	
TIA JUANA HYDRO UNIT																	
Z11HO																	
Z11HO5																	

TABLE E-2
RADIOASSAYS OF GROUND WATER
LOS ANGELES DRAINAGE PROVINCE (U)

State Well Number	Date Sampled	Picocuries per liter ^a			
		Gross Alpha Gross Beta	Solid Alpha Solid Beta	Dissolved Alpha Dissolved Beta	
<u>Upper Ventura River Hydrologic Subunit U-02.B0</u>					
4N/23W- 9B1	7-15-64		0.15 \pm 0.63 <u>-8.48 \pm 8.64</u>		- 1.43 \pm 7.90 <u>- 0.38 \pm 10.88</u>
<u>Ojai Hydrologic Subarea U-02.C2</u>					
4N/22W- 6Q1	9-10-64	3.94 \pm 4.21 <u>2.86 \pm 13.04</u>			
<u>Oxnard Hydrologic Subarea U-03.A1</u>					
1S/21W-30A1	7-17-64		0.26 \pm 0.63 <u>-5.68 \pm 8.00</u>		- 0.33 \pm 2.54 <u>- 6.38 \pm 11.73</u>
1N/21W-31A1	7-17-64		0.18 \pm 0.63 <u>3.21 \pm 8.36</u>		- 1.55 \pm 10.73 <u>6.64 \pm 12.44</u>
<u>Pleasant Valley Hydrologic Subarea U-03.A2</u>					
1N/20W- 6J1	7- 8-64		-0.18 \pm 1.65 <u>6.67 \pm 8.43</u>		20.00 \pm 18.40 <u>-17.29 \pm 13.22</u>
<u>Central Hydrologic Subarea U-05.A5</u>					
2S/11W- 8A5	7- 1-64		-0.48 \pm 0.23 <u>-0.70 \pm 9.01</u>		2.98 \pm 3.13 <u>- 0.45 \pm 11.13</u>

TABLE E-2
RADIOASSAYS OF GROUND WATER
LOS ANGELES DRAINAGE PROVINCE (U)
(continued)

State Well Number	Date Sampled	Picocuries per litera			
		Gross Gross	Alpha Beta	Solid Solid	Dissolved Dissolved
<u>Main San Gabriel Hydrologic Subarea U-05.D1</u>					
1S/9W-1F2	6-23-64	-0.90	<u>+</u>	1.25	
		0.43	<u>+</u>	13.57	
1S/10W-7A6	6-25-64	2.58	<u>+</u>	4.26	
		9.73	<u>+</u>	14.11	
1S/10W-19M1	6-25-64	-1.88	<u>+</u>	1.90	
		2.27	<u>+</u>	13.29	
1S/11W-10F1	6-26-64	0.24	<u>+</u>	1.60	
		-2.86	<u>+</u>	10.77	
1S/11W-14M1	6-15-64	0.00	<u>+</u>	2.05	
		7.16	<u>+</u>	11.64	
1S/11W-26K1	6-26-64	1.17	<u>+</u>	2.28	
		-5.13	<u>+</u>	12.09	
1S/11W-33P1	6-26-64	-1.08	<u>+</u>	2.75	
		-1.67	<u>+</u>	13.60	
<u>Upper Canyon Hydrologic Subarea U-05.D3</u>					
1N/10W-22M1	6-24-64	-0.35	<u>+</u>	1.56	
		-3.40	<u>+</u>	12.15	
<u>Pomona Hydrologic Subarea U-05.E2</u>					
1S/8W-7N1	6-23-64	0.88	<u>+</u>	2.41	
		37.84	<u>+</u>	12.10	

TABLE E-2
RADIOASSAYS OF GROUND WATER
LOS ANGELES DRAINAGE PROVINCE (U)
(continued)

State Well Number	Date Sampled	Picocuries per liter ^a			
		Gross Alpha Gross Beta	Solid Alpha Solid Beta	Dissolved Alpha Dissolved Beta	

Live Oak Hydrologic Subarea U-05.E3

1S/8W-5A1	6-23-64	0.20 + 3.60
		<u>-17.50 + 14.01</u>

Anaheim Hydrologic Subarea U-05.F1

5S/12W-12C1	6-19-64	0.59 + 1.82
		<u>-11.18 + 11.64</u>

TABLE E-2
RADIOASSAYS OF GROUND WATER
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State Well Number	Date Sampled	Picocuries per liter ^a			
		Gross Alpha Gross Beta	Solid Alpha Solid Beta	Dissolved Alpha Dissolved Beta	
<u>Bristol Hydrologic Subunit X-10.A0</u>					
6N/11E-30F1	6-25-64	- 10.61 + 6.27			
		<u>- 152.21 + 131.14</u>			
6N/12E-35F1	6-25-64	- 4.90 + 6.25			
		<u>18.56 + 78.66</u>			
6N/13E-36Q1	6-25-64	- 3.12 + 2.06			
		<u>4.60 + 13.65</u>			
6N/14E-31A1	6-25-64	1.86 + 3.67			
		<u>5.58 + 13.29</u>			
6N/14E-32E1	6-25-64	- 0.36 + 2.00			
		<u>- 1.06 + 12.77</u>			
6N/14E-32M1	6-25-64	- 0.70 + 2.63			
		<u>1.40 + 14.40</u>			
6N/14E-32M2	6-25-64	0.41 + 2.55			
		<u>0.34 + 12.55</u>			
6N/14E-32NL	6-25-64	- 1.32 + 1.68			
		<u>13.49 + 14.05</u>			
7N/11E-36D1	6-25-64	0.55 + 3.00			
		<u>3.38 + 12.40</u>			
8N/12E-20B1	6-25-64	21.70 + 8.07			
		<u>18.71 + 14.49</u>			
8N/12E-26L1	6-25-64	9.18 + 5.51			
		<u>6.17 + 14.11</u>			

TABLE E-2
RADIOASSAYS OF GROUND WATER
SANTA ANA DRAINAGE PROVINCE (Y)

State Well Number	Date Sampled	Picocuries per liter ^a			
		Gross Alpha Gross Beta	Solid Alpha Solid Beta	Dissolved Alpha Dissolved Beta	
<u>East Coastal Plain Hydrologic Subarea Y-01.A1</u>					
5S/11W-21M3	6-19-64	1.07 <u>±</u> 2.11 <hr/> 0.99 <u>±</u> 10.72			
5S/11W-21N2	6-19-64	1.07 <u>±</u> 2.87 <hr/> - 5.46 <u>±</u> 12.45			
5S/11W-29C1	6-22-64	- 0.30 <u>±</u> 1.13 <hr/> -15.25 <u>±</u> 11.72			
5S/11W-33H1	6-19-64	0.99 <u>±</u> 1.95 <hr/> 6.02 <u>±</u> 12.02			
5S/11W-34F3	6-19-64	- 1.27 <u>±</u> 2.64 <hr/> 5.68 <u>±</u> 13.68			
5S/11W-36B2	6-17-64	1.15 <u>±</u> 2.24 <hr/> 1.68 <u>±</u> 12.88			
5S/11W-36P1	6-17-64	3.77 <u>±</u> 4.63 <hr/> 2.97 <u>±</u> 13.80			
6S/10W-6B2	6-14-64	0.66 <u>±</u> 2.02 <hr/> - 2.39 <u>±</u> 12.17			
6S/10W-6H1	6-17-64	- 2.05 <u>±</u> 2.87 <hr/> - 5.67 <u>±</u> 12.32			
6S/11W-1N2	6-17-64	- 0.19 <u>±</u> 2.07 <hr/> 1.50 <u>±</u> 2.41			
6S/11W-3R2	6-23-64	- 5.13 <u>±</u> 4.11 <hr/> 5.50 <u>±</u> 14.97			

TABLE E-2
RADIOASSAYS OF GROUND WATER
SANTA ANA DRAINAGE PROVINCE (Y)
(continued)

State Well Number	Date Sampled	Picocuries per liter ^a		
		Gross Alpha Gross Beta	Solid Alpha Solid Beta	Dissolved Alpha Dissolved Beta
<u>Chino Hydrologic Subarea Y-01.B1</u>				
1S/6W-29R1	6-17-64	0.58 <u>±</u> 1.62 <u>- 5.60 ± 11.66</u>		
1S/8W-10N1	6-22-64	0.50 <u>±</u> 0.79 <u>0.27 ± 11.47</u>		
2S/7W-10M1	6-17-64	6.00 <u>±</u> 6.51 <u>-11.41 ± 14.16</u>		
2S/7W-22K1	6-17-64	1.90 <u>±</u> 3.05 <u>- 3.95 ± 12.49</u>		
2S/7W-23E1	6-17-64	6.64 <u>±</u> 3.61 <u>-14.10 ± 12.82</u>		
2S/7W-27A1	6-17-64	2.61 <u>±</u> 5.18 <u>0.43 ± 13.26</u>		
<u>Claremont Heights Hydrologic Subarea Y-01.B3</u>				
1N/8W-34N1	6-22-64	- 1.14 <u>±</u> 0.62 <u>0.14 ± 11.18</u>		
<u>Temescal Hydrologic Subarea Y-01.B5</u>				
3S/7W-24F1	9-16-64		-0.11 <u>±</u> 1.65 <u>7.61 ± 3.00</u>	2.86 <u>±</u> 7.68 <u>-2.03 ± 12.65</u>
<u>Arlington Hydrologic Subarea Y-01.B6</u>				
3S/6W-24P1	9-15-64		-0.11 <u>±</u> 1.65 <u>6.86 ± 8.50</u>	3.12 <u>±</u> 4.56 <u>0.00 ± 9.06</u>
<u>Riverside Hydrologic Subarea Y-01.B7</u>				
2S/5W-12C1	9-15-64		0.59 <u>±</u> 0.96 <u>2.55 ± 8.84</u>	2.33 <u>±</u> 3.29 <u>25.45 ± 12.22</u>

TABLE E-2
RADIOASSAYS OF GROUND WATER

SANTA ANA DRAINAGE PROVINCE (Y)
(continued)

State Well Number	Date Sampled	Picocuries per liter ^a			
		Gross Alpha Gross Beta	Solid Alpha Solid Beta	Dissolved Alpha Dissolved Beta	
<u>Bedford Hydrologic Subarea Y-01.C2</u>					
4S/6W-22P1	9-18-64	-0.26 ± 1.64		1.33 ± 3.77	
		<u>3.82 ± 7.61</u>		<u>0.00 ± 12.42</u>	
<u>Cajon Hydrologic Subarea Y-01.E1</u>					
2N/5W-33Q2	9-14-64	0.27 ± 0.63		0.37 ± 1.76	
		<u>0.81 ± 8.80</u>		<u>-4.34 ± 9.27</u>	
3N/6W-28B1	9-14-64	0.20 ± 0.96		0.14 ± 28.82	
		<u>3.82 ± 8.36</u>		<u>10.48 ± 12.38</u>	
<u>Bunker Hill Hydrologic Subarea Y-01.E2</u>					
1S/3W-9E2	6-15-64	3.35 ± 2.46			
		<u>2.38 ± 11.42</u>			
1S/3W-18L1	6-16-64		0.11 ± 0.73	5.88 ± 3.44	
			<u>-2.70 ± 8.64</u>	<u>-9.38 ± 10.83</u>	
1S/4W-5E5	6-17-64	1.73 ± 2.56			
		<u>5.10 ± 13.12</u>			
1S/4W-13F2	6-17-64	-11.17 ± 5.30			
		<u>-12.32 ± 12.94</u>			
1S/4W-13G2	6-17-64	6.95 ± 3.64			
		<u>6.51 ± 12.60</u>			
1S/4W-13L1	6-16-64	5.97 ± 2.69			
		<u>11.97 ± 12.65</u>			
1S/4W-23F2	6-17-64	1.10 ± 3.38			
		<u>8.35 ± 13.66</u>			

TABLE E-2

RADIOASSAYS OF GROUND WATER

SANTA ANA DRAINAGE PROVINCE (Y)
(continued)

State Well Number	Date Sampled	Picocuries per liter ^a			
		Gross Alpha Gross Beta	Solid Alpha Solid Beta	Dissolved Alpha Dissolved Beta	
<u>Bunker Hill Hydrologic Subarea Y-01.E2 (continued)</u>					
1S/4W-26J1	6-16-64	1.50 <u>±</u> 1.90 <u>-1.42 ± 13.22</u>			
1S/4W-29E1	6-16-64		0.07 <u>±</u> 2.83 <u>2.57 ± 8.80</u>	0.26 <u>±</u> 1.49 <u>0.00 ± 8.31</u>	
1N/4W-29F1	6-16-64	0.28 <u>±</u> 1.66 <u>14.30 ± 13.09</u>			
1N/5W-2A1	9-14-64		0.48 <u>±</u> 0.81 <u>9.94 ± 9.09</u>	0.98 <u>±</u> 1.65 <u>2.11 ± 9.51</u>	
1N/5W-22F1	9-14-64		-0.61 <u>±</u> 1.77 <u>-2.71 ± 8.18</u>	-0.83 <u>±</u> 3.33 <u>-10.36 ± 10.72</u>	
2N/5W-34A1	9-14-64		0.15 <u>±</u> 0.63 <u>6.61 ± 8.88</u>	-0.45 <u>±</u> 3.95 <u>3.82 ± 9.72</u>	
<u>Santa Ana Canyon Hydrologic Subarea Y-01.E7</u>					
1S/2W-8C1	6-15-64	8.62 <u>±</u> 2.90 <u>10.01 ± 11.68</u>			
<u>Mill Creek Hydrologic Subarea Y-01.E8</u>					
1S/2W-16F1	6-15-64	6.92 <u>±</u> 3.76 <u>9.45 ± 12.85</u>			
<u>Cherry Valley Hydrologic Subarea Y-01.F3</u>					
2S/2W-14M1	8-17-64	0.00 <u>±</u> 1.32 <u>-0.22 ± 9.35</u>			

TABLE E-2
RADIOASSAYS OF GROUND WATER
SANTA ANA DRAINAGE PROVINCE (Y)
(continued)

State Well Number	Date Sampled	Picocuries per liter ^a			
		Gross Alpha Gross Beta	Solid Alpha Solid Beta	Dissolved Alpha Dissolved Beta	
<u>Perris Valley Hydrologic Subarea Y-02.A1</u>					
3S/3W-29E1	8-12-64	-1.19 <u>±</u> 2.85 <hr/> 20.94 <u>±</u> 11.34			
<u>Menifee Hydrologic Subarea Y-02.A2</u>					
6S/2W-6P1	8-13-64	0.83 <u>±</u> 4.08 <hr/> -8.64 <u>±</u> 11.84			
<u>San Jacinto Hydrologic Subarea Y-02.B1</u>					
5S/1E-9J1	8-14-64	-2.13 <u>±</u> 7.94 <hr/> -0.42 <u>±</u> 11.25			

a. Deviations reported at the 95 percent confidence level.

/

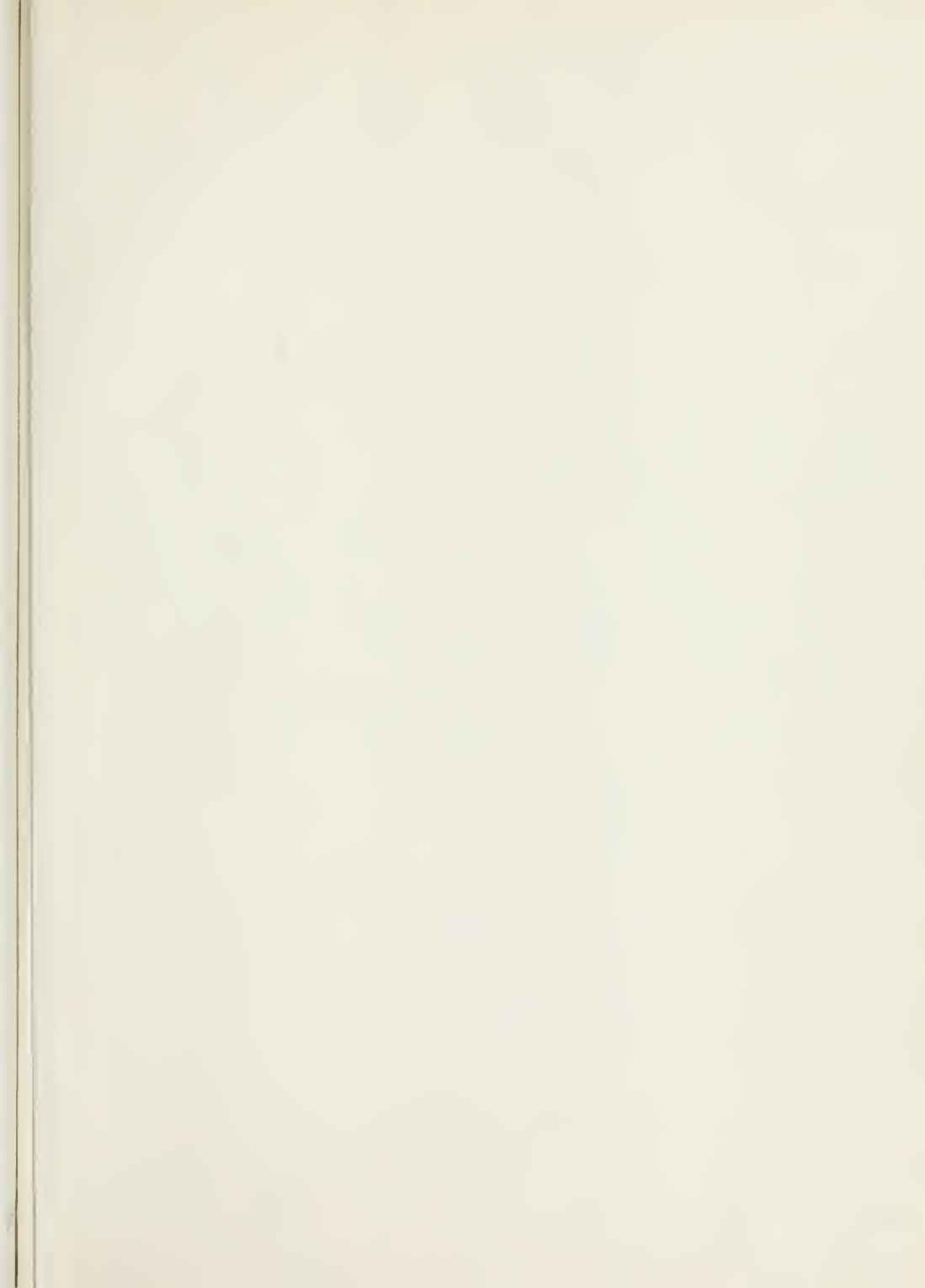
ha
a







-4-







THIS BOOK IS DUE ON THE LAST DATE
STAMPED BELOW

RENEWED BOOKS ARE SUBJECT TO IMMEDIATE
RECALL

SEP 25 1972
JUN 21 REC'D

LIBRARY, UNIVERSITY OF CALIFORNIA, DAVIS

Book Slip-25m-6.66(G3855s1)458



3 1175 02468 6944

Nº 482516

California. Dept.
of Water Resources.
Bulletin.

PHYSICAL
SCIENCES
LIBRARY

TC824
C2
A2
no.130:64
v.5
appx.E
c.2

LIBRARY
UNIVERSITY OF CALIFORNIA
DAVIS

482516

California. Dept.
of Water Resources.
Bulletin.

Call Number:

TC824
C2
A2
no.130:64

